



TimeWizard® **Implementation Guide**

Version 4.2

TIMEWIZARD IMPLEMENTATION GUIDE

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NOTE:

During the installation process, you will be required to restart the computer several times. You may want to print a hard copy of this guide for your reference before restarting the computer.

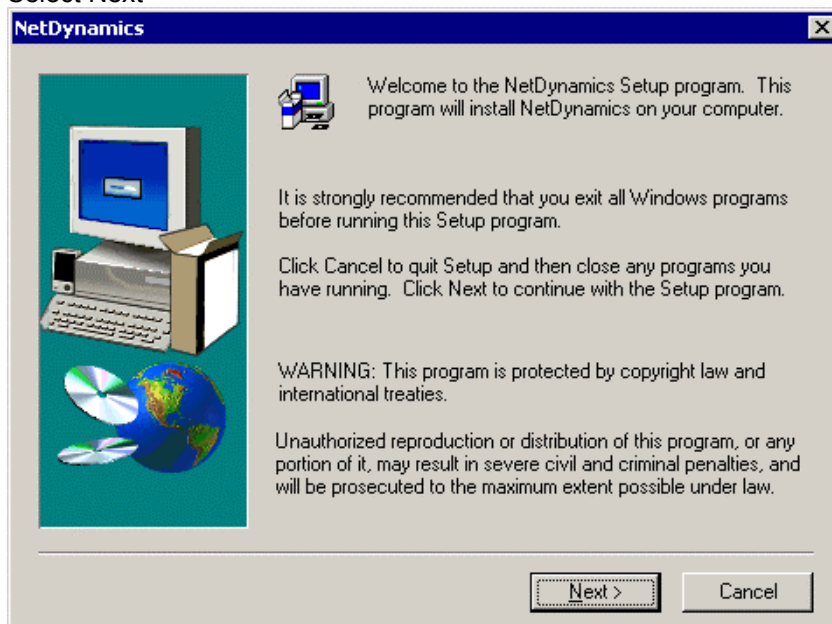
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WEB APPLICATION SERVER INSTALLATION

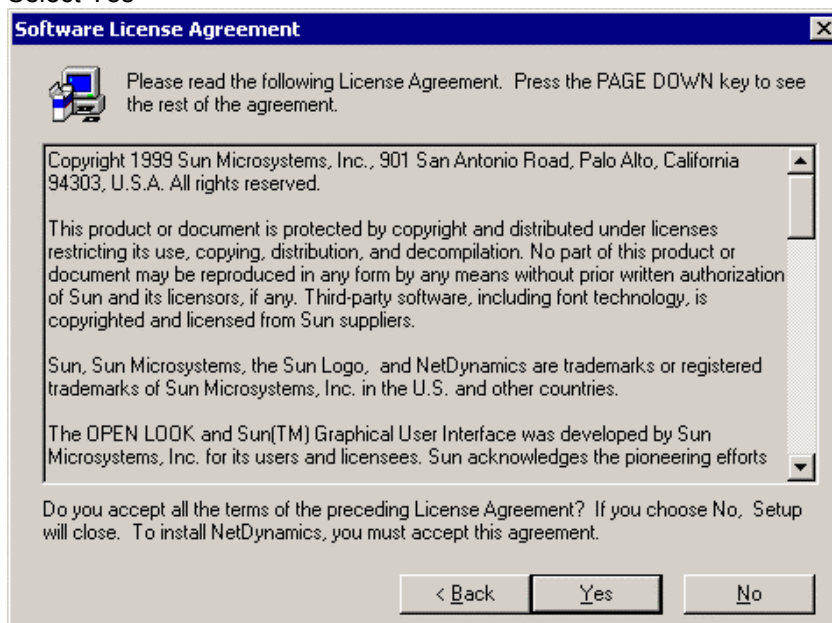
Windows NT/2000

1. Select the setup.exe from the CD located in the NetDynamics5.0.2.16 directory.

2. Select Next

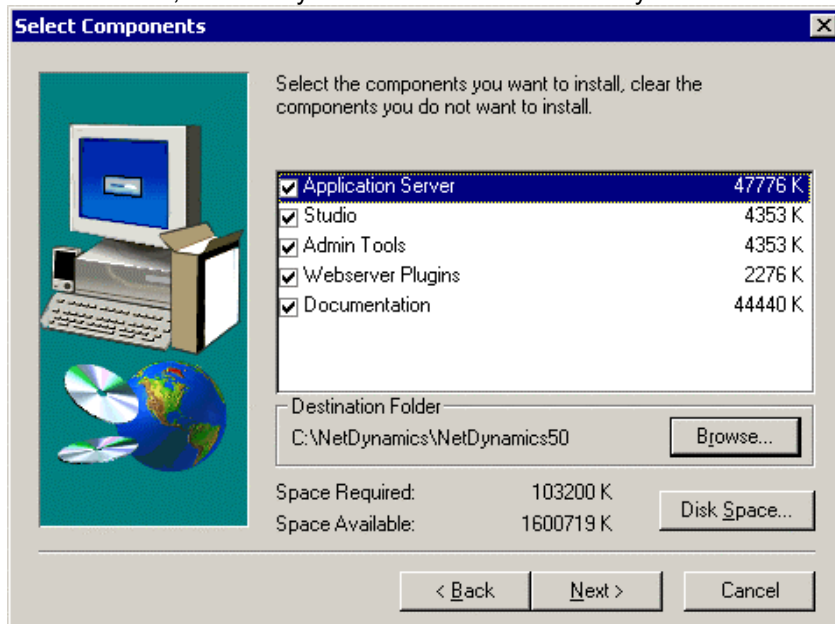


3. Select Yes

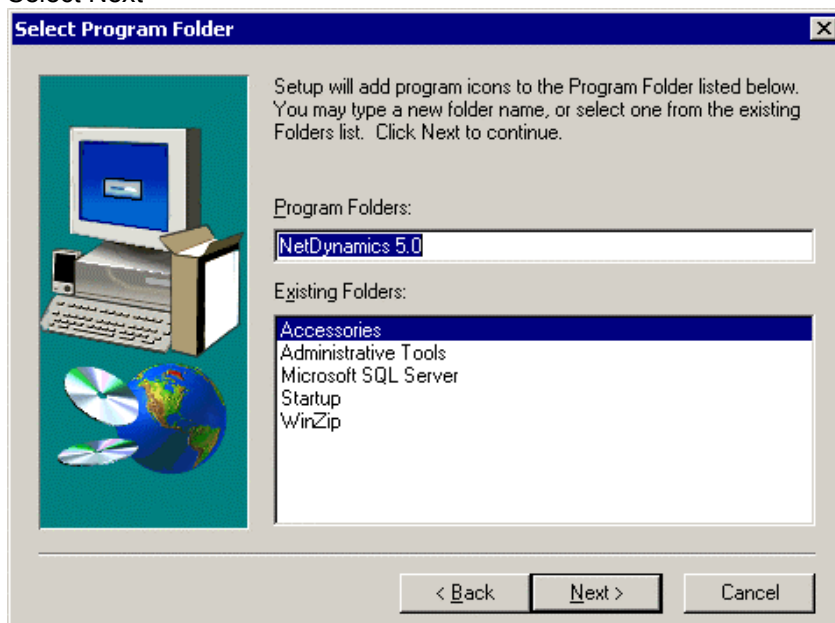


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4. Leave all selected. If you want NetDynamics installed to a different drive select browse to select a different Drive, however you MUST leave the directory structure intact.

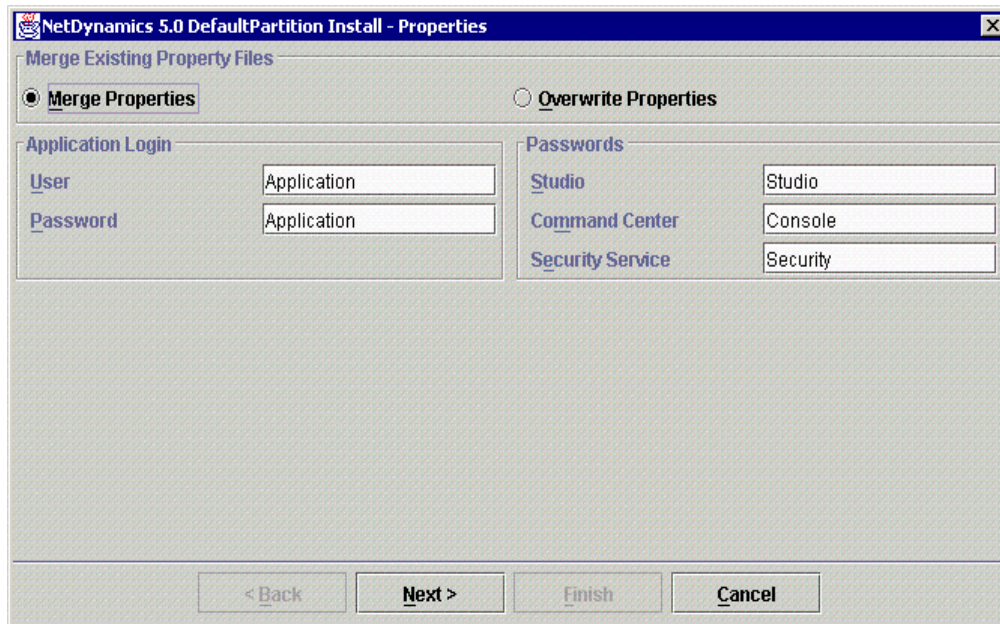


5. Select Next



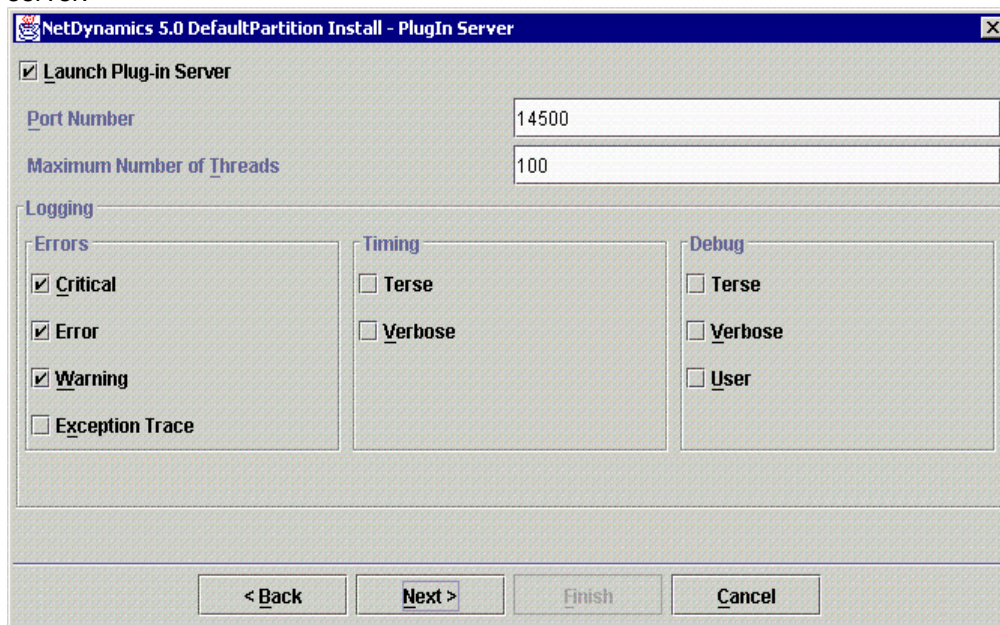
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6. Leave this section Default. The properties files are not installed at this point so NetDynamics will create new ones



The screenshot shows the 'NetDynamics 5.0 DefaultPartition Install - Properties' dialog box. It has a title bar with a close button. The main area is divided into two sections: 'Merge Existing Property Files' and 'Application Login'. In the 'Merge Existing Property Files' section, the 'Merge Properties' radio button is selected, and the 'Overwrite Properties' radio button is unselected. The 'Application Login' section contains two columns of text boxes. The first column has 'User' and 'Password' labels, both with 'Application' entered in the text boxes. The second column has 'Studio', 'Command Center', and 'Security Service' labels, with 'Studio', 'Console', and 'Security' entered in the text boxes respectively. At the bottom, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

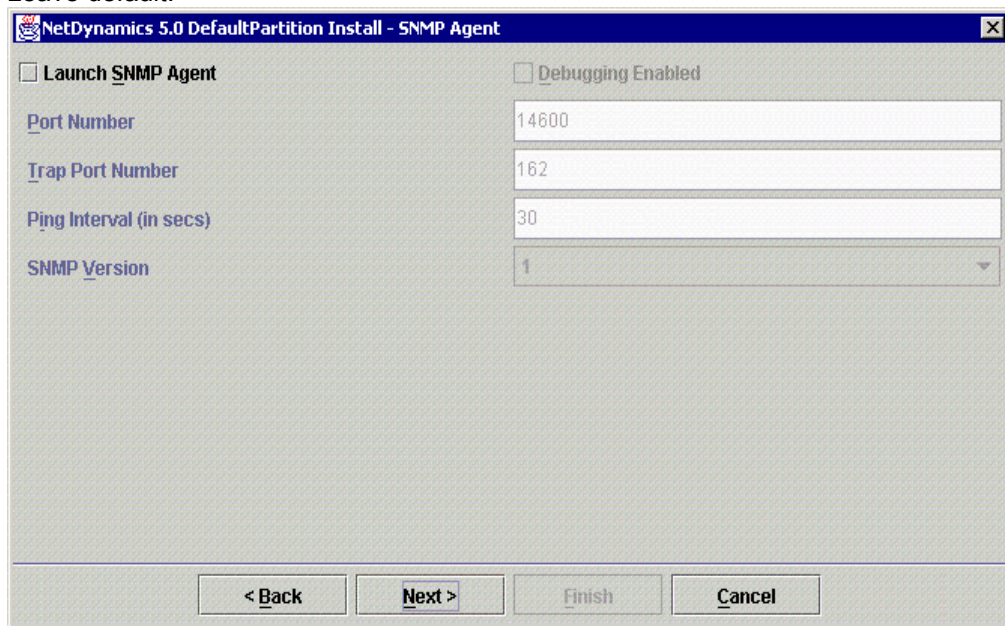
7. Leave this section default as well. Port 14500 is the port that NetDynamics creates to communicate with the Web server even if the Application is also the Web server. NetDynamics creates a virtual machine when communication is required between the Web and Application server.



The screenshot shows the 'NetDynamics 5.0 DefaultPartition Install - PlugIn Server' dialog box. It has a title bar with a close button. The main area is divided into several sections. The 'Launch Plug-in Server' section has a checked checkbox. Below it, the 'Port Number' text box contains '14500' and the 'Maximum Number of Threads' text box contains '100'. The 'Logging' section is divided into three columns: 'Errors', 'Timing', and 'Debug'. The 'Errors' column has four checkboxes: 'Critical' (checked), 'Error' (checked), 'Warning' (checked), and 'Exception Trace' (unchecked). The 'Timing' column has two checkboxes: 'Terse' (unchecked) and 'Verbose' (unchecked). The 'Debug' column has three checkboxes: 'Terse' (unchecked), 'Verbose' (unchecked), and 'User' (unchecked). At the bottom, there are four buttons: '< Back', 'Next >', 'Finish', and 'Cancel'.

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8. Leave default.



NetDynamics 5.0 DefaultPartition Install - SNMP Agent

☐ Launch SNMP Agent

☐ Debugging Enabled

Port Number: 14600

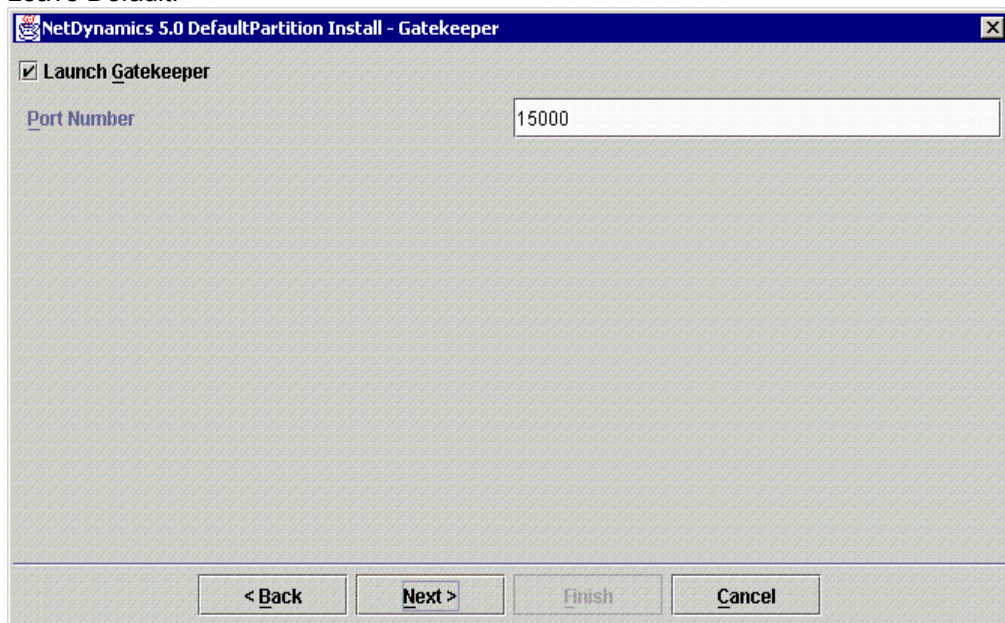
Trap Port Number: 162

Ping Interval (in secs): 30

SNMP Version: 1

< Back Next > Finish Cancel

9. Leave Default.



NetDynamics 5.0 DefaultPartition Install - Gatekeeper

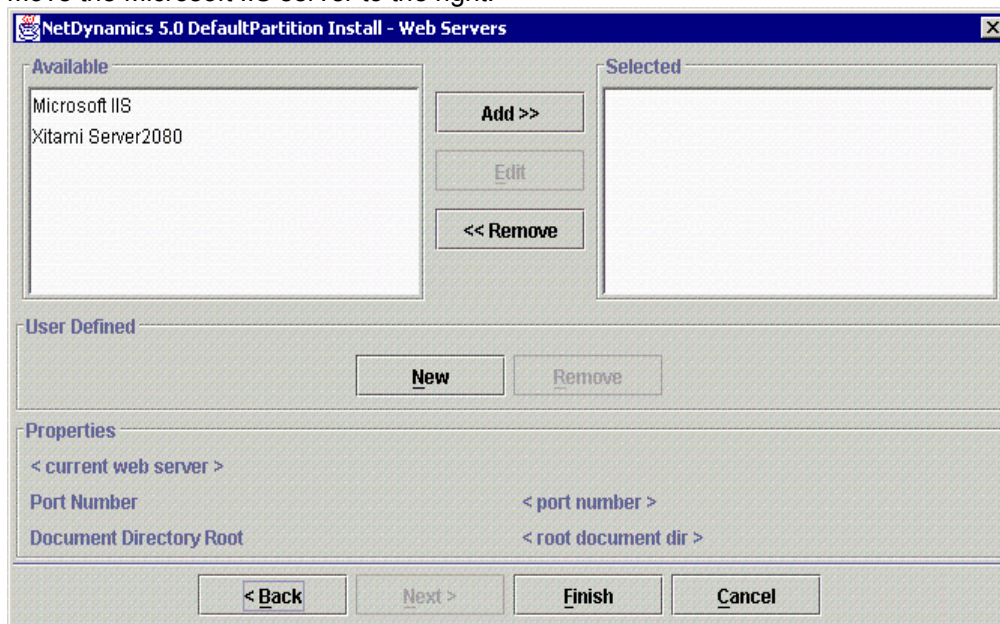
☒ Launch Gatekeeper

Port Number: 15000

< Back Next > Finish Cancel

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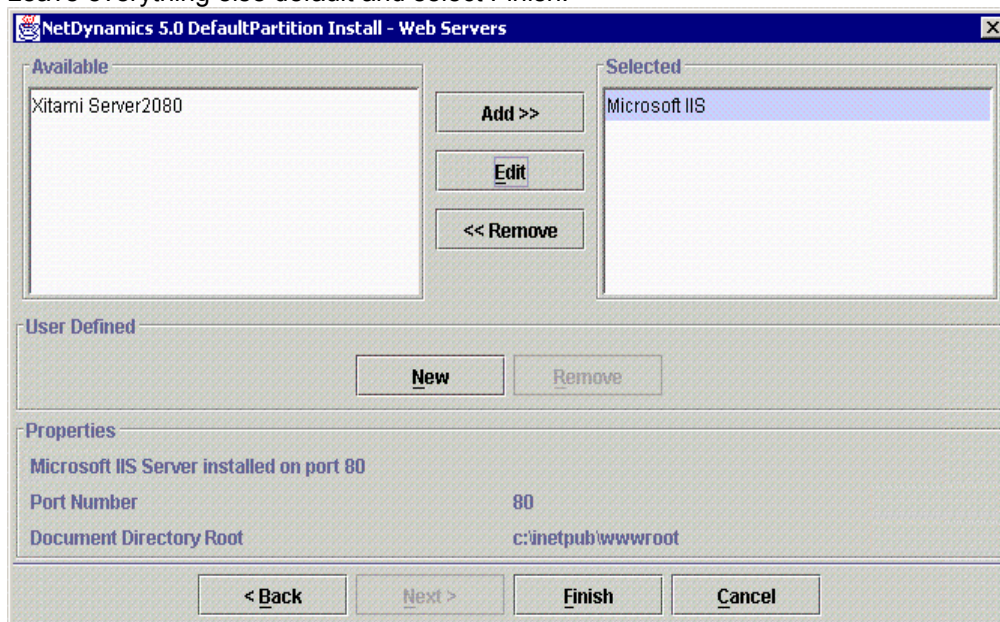
10. Move the Microsoft IIS server to the right.



11. Verify the Microsoft IIS is selected. Modify the settings by selecting the edit option located in the center of the screen.

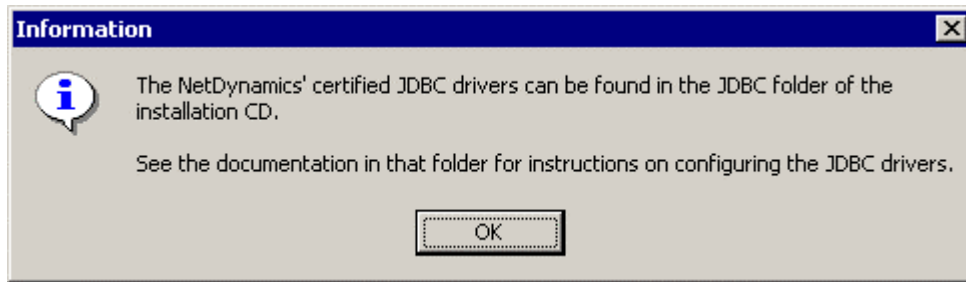
If the web server is located on a different machine then the application server the Inetpub folder will have to be shared (only for the duration of the installation process) before proceeding. NetDynamics needs to place files in the scripts directory and wwwroot directory. The document root directory should be mapped to the wwwroot folder. Ex. C:\inetpub\wwwroot if the web and application server are located on the same machine or [\\Webserver\wwwroot](#) directory if the web and application servers are on separate machines.

Leave everything else default and select Finish.

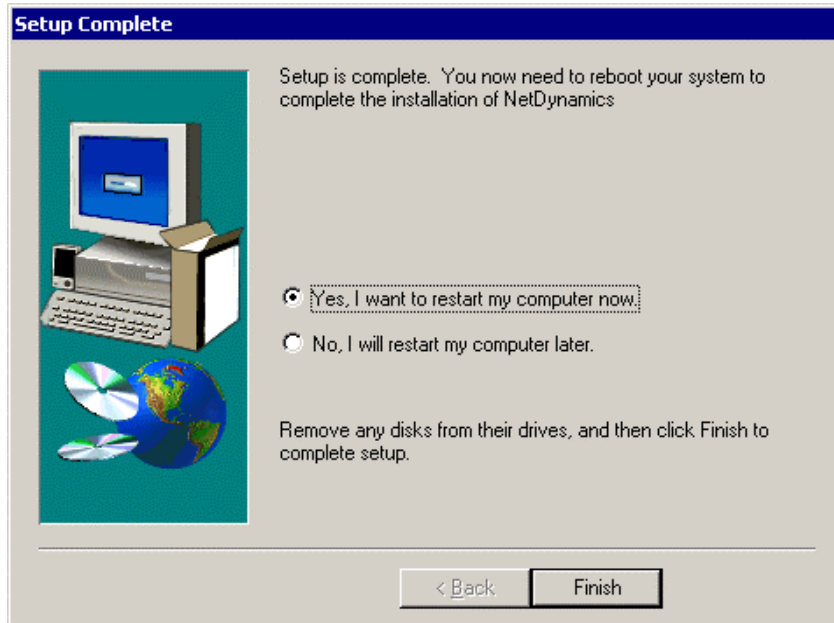


12. Select OK.

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13. Reboot

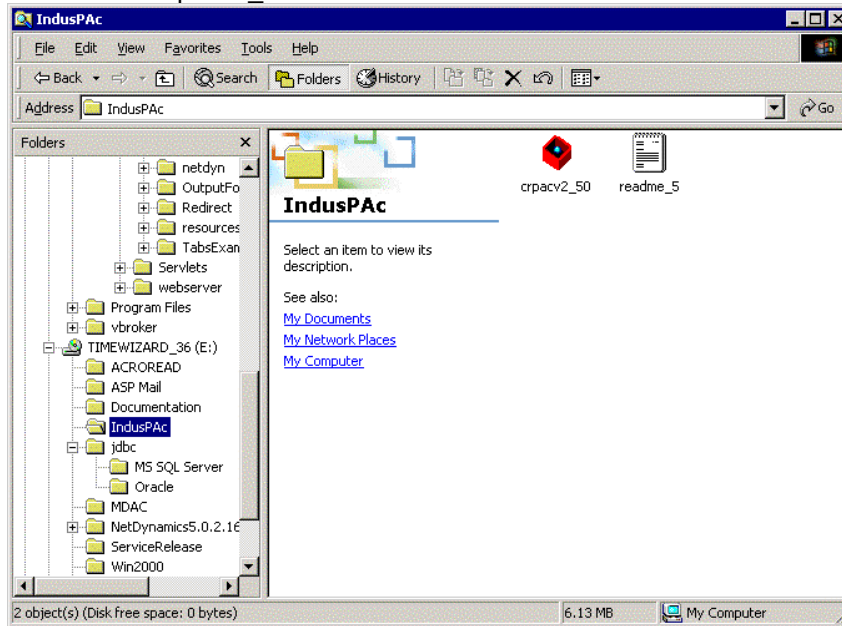


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IndusPAC Installation

To begin installation of the IndusPAC for Crystal Reports, locate the IndusPac directory on the CD.

1. Execute the crpacv2_50.exe.

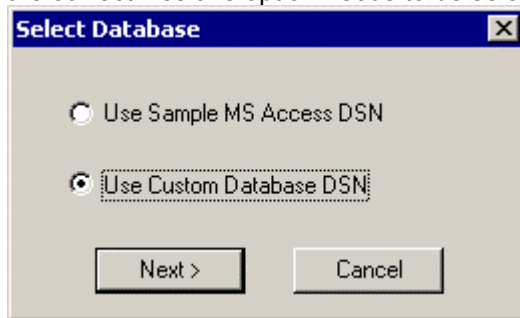


2. Select Next to continue.

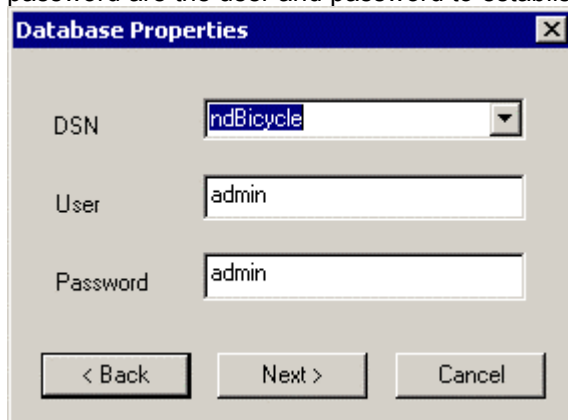


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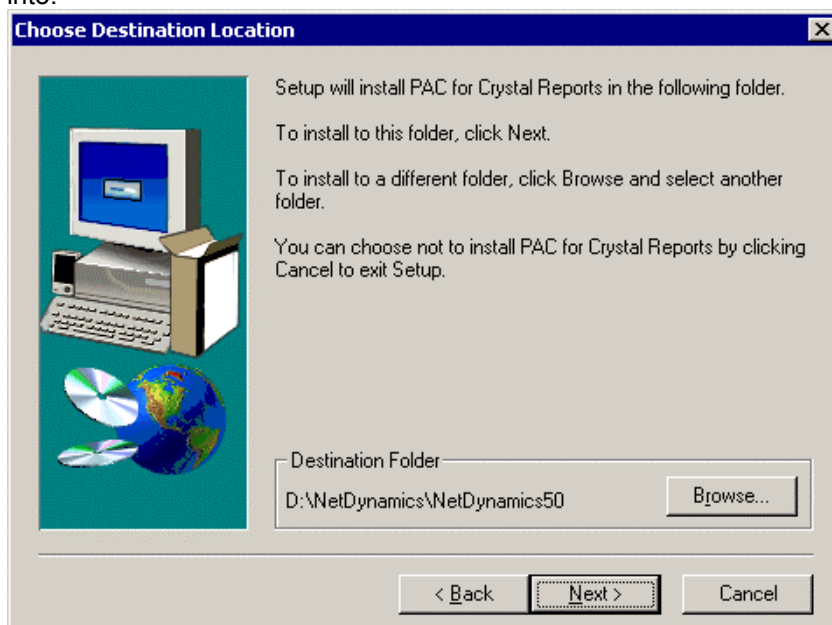
3. You will want to use a Custom Database DSN. We will change this later, however in order to load the correct files this option needs to be selected at this time.



4. Under the DSN select ndBicycle and leave the User and Password as they are. This user and password are the user and password to establish a connection to the Indus Report Manager GUI.

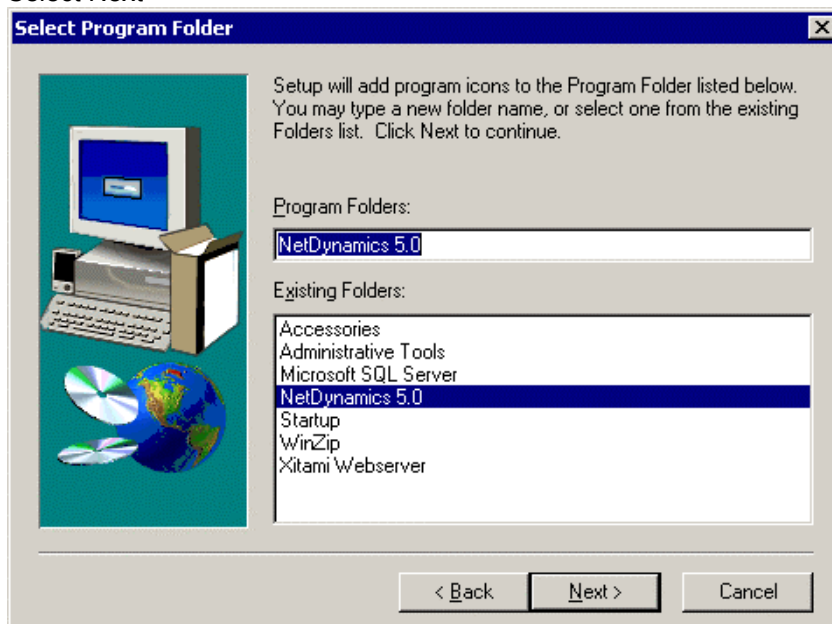


5. Leave this Default – the install should locate the directory that NetDynamics has been installed into.

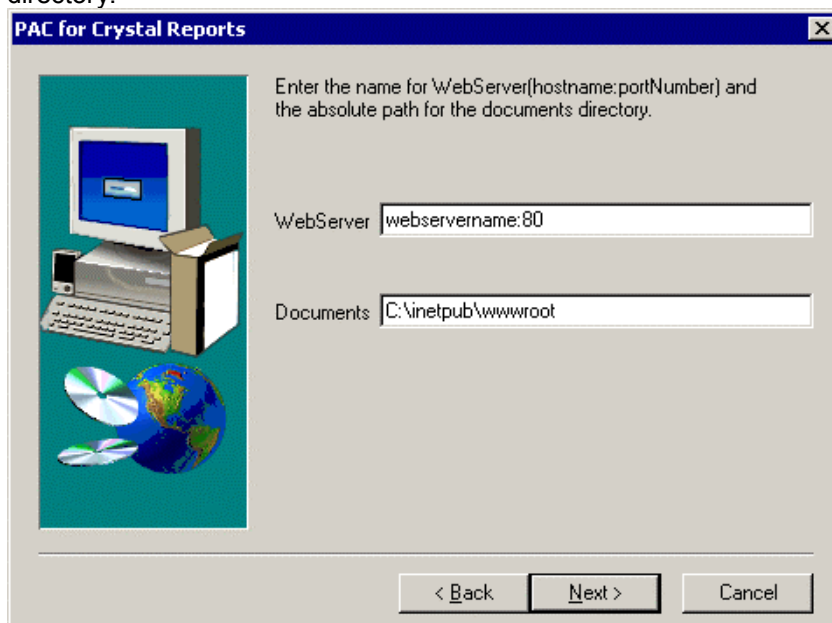


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6. Select Next

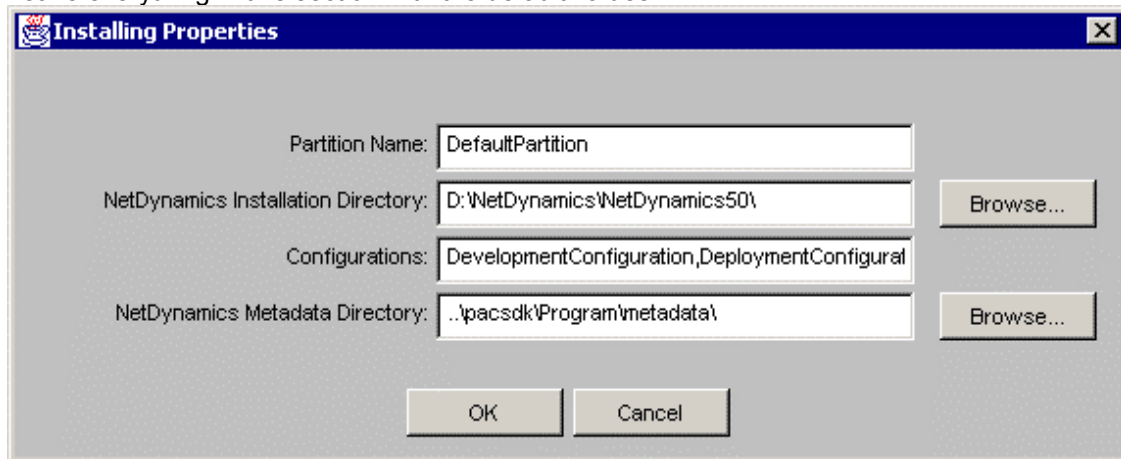


7. Under the WebServer section specify the WebServer name followed by a colon and the port – the default port is 80. Under the Documents section a path to the wwwroot directory must be specified. This path can be a UNC path if the web server is located on a different machine than the application server. If the web server is also the application server then a local path to the wwwroot directory will be fine. There are some files and directories that Indus has to load to this directory.

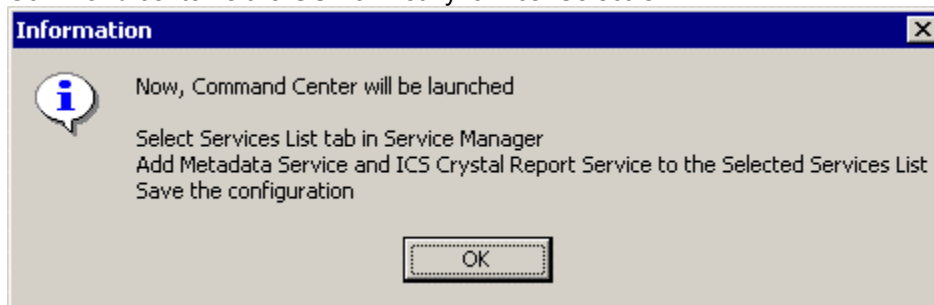


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8. Leave everything in this section with the default values.



9. Command center is the GUI for NetDynamics. Select OK.

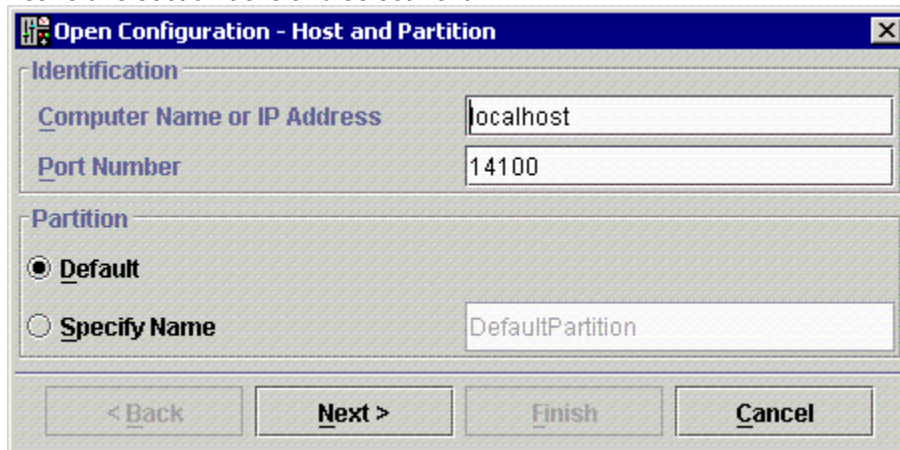


10. Select File Open to start the Command Center GUI.



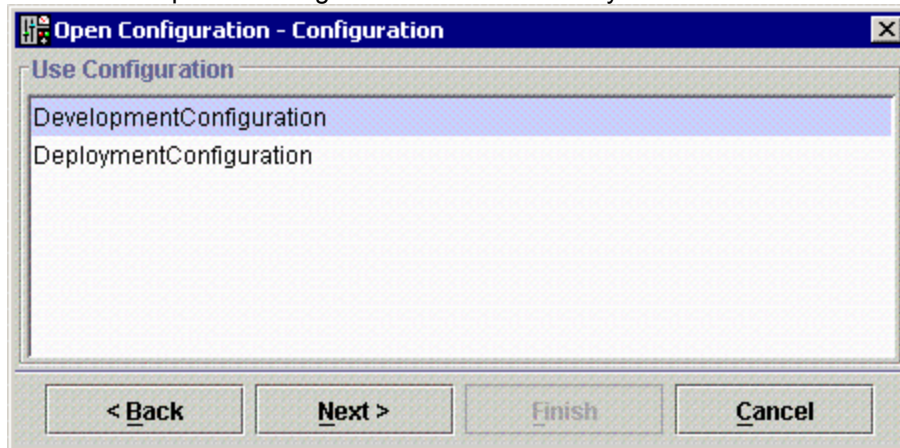
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11. Leave this section as is and select next.



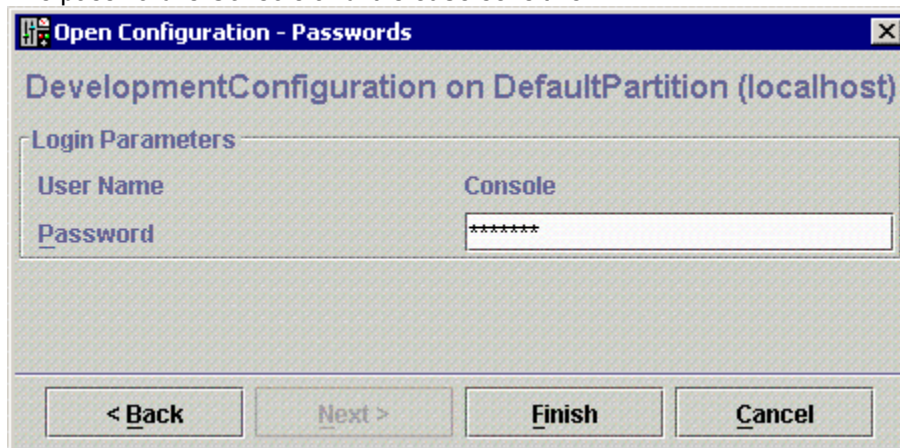
The dialog box is titled "Open Configuration - Host and Partition". It has two sections: "Identification" and "Partition". In the "Identification" section, "Computer Name or IP Address" is set to "localhost" and "Port Number" is set to "14100". In the "Partition" section, the "Default" radio button is selected, and the "Specify Name" text box contains "DefaultPartition". At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

12. Select Development Configuration if it is not already selected. Select next to proceed.



The dialog box is titled "Open Configuration - Configuration". It has a section "Use Configuration" with a list box containing "DevelopmentConfiguration" (which is highlighted) and "DeploymentConfiguration". At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

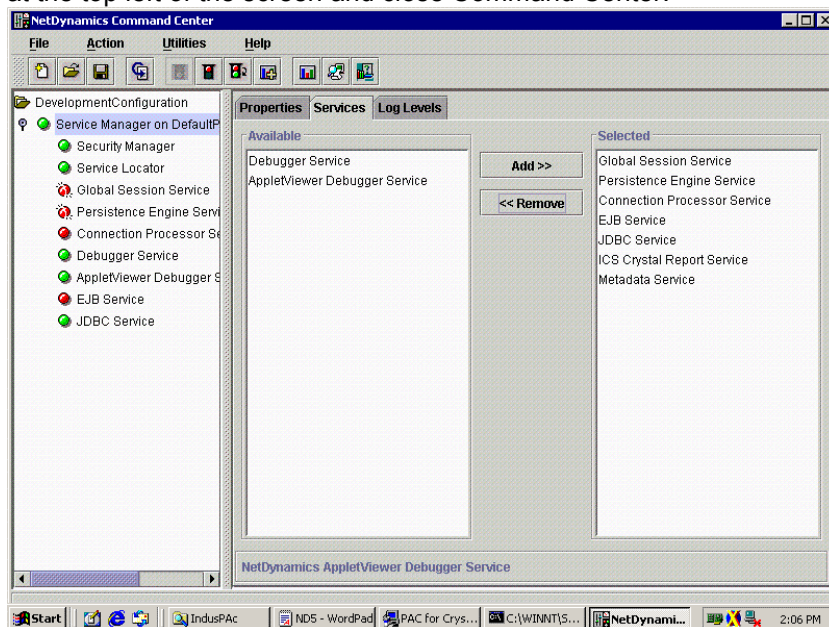
13. The password is Console and it is **case** sensitive.



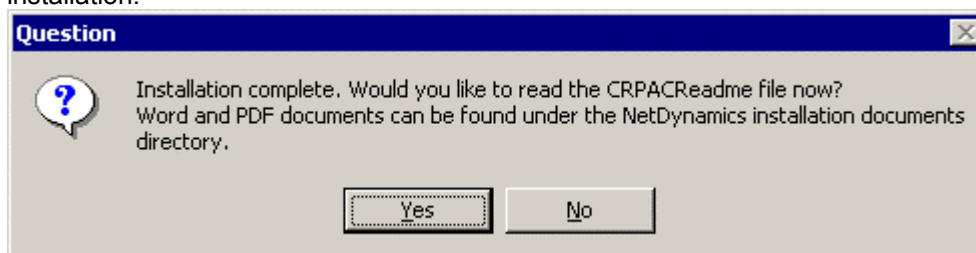
The dialog box is titled "Open Configuration - Passwords". It has a section "Login Parameters" with "User Name" set to "Console" and "Password" set to "*****". The title bar also displays "DevelopmentConfiguration on DefaultPartition (localhost)". At the bottom, there are four buttons: "< Back", "Next >", "Finish", and "Cancel".

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14. Select the service manager on Default partition and remove the EJB, Debugger and AppletViewer debugger services. These services are not required for TimeWizard timesheet to run and will effect performance on the application server. Save the configuration by selecting the disk located at the top left of the screen and close Command Center.

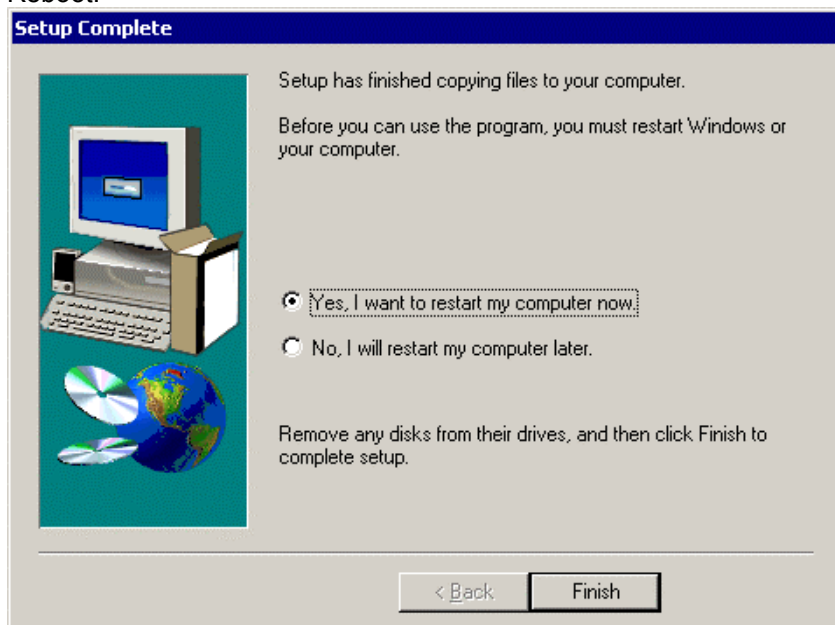


15. Select No unless you would like to view the read me. It is not necessary to complete the installation.



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16. Reboot.

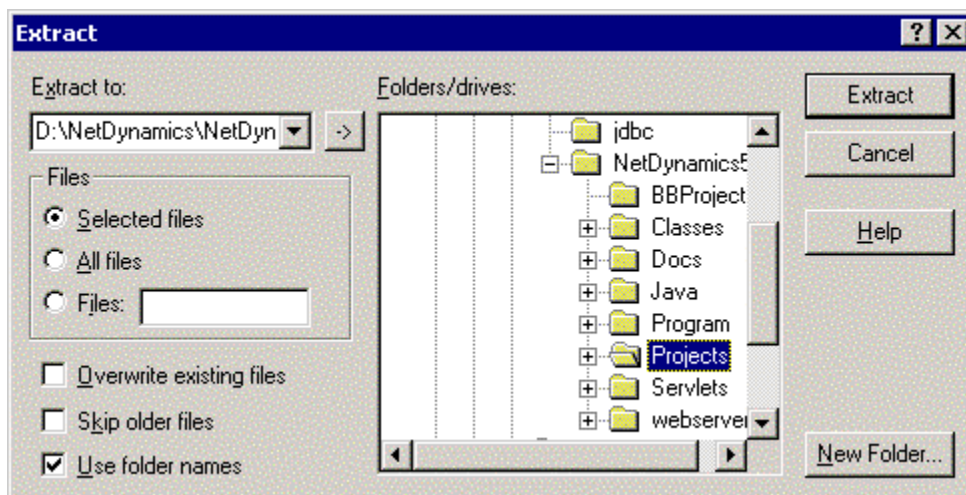


17. When the server finishes rebooting, start the NetDynamics and Indus Report services in the Windows operating system. In the settings for Services, start the NetDynamics service first and the Indus Report service second. (If, for any reason, you need to stop these services, stop the Indus Report service first and the NetDynamics service second.) In the properties for services, log the services on with a domain account that has, at minimum, read, write, and execute permissions.

MSSQL Report Configuration

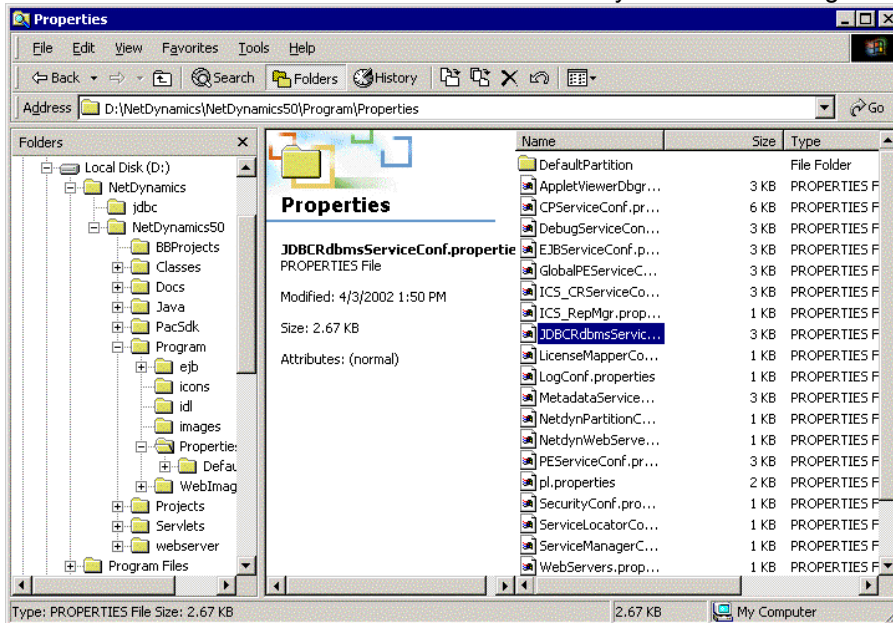
Located on the installation CD, in the jdbc\MS SQL Server folder, is a file named netdyn.zip.

1. Extract the file to the NetDynamics\NetDynamics50\Projects directory. Make sure that you the use folder option is selected.



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2. There are three files that have to be modified when you are connecting to a MSSQL database.



The files that you are going to have to modify are named:

JDBCrdBmsServiceConf.properties.

These files are located in the:

<drive letter>:\NetDynamics\NetDynamics50\Program\Properties

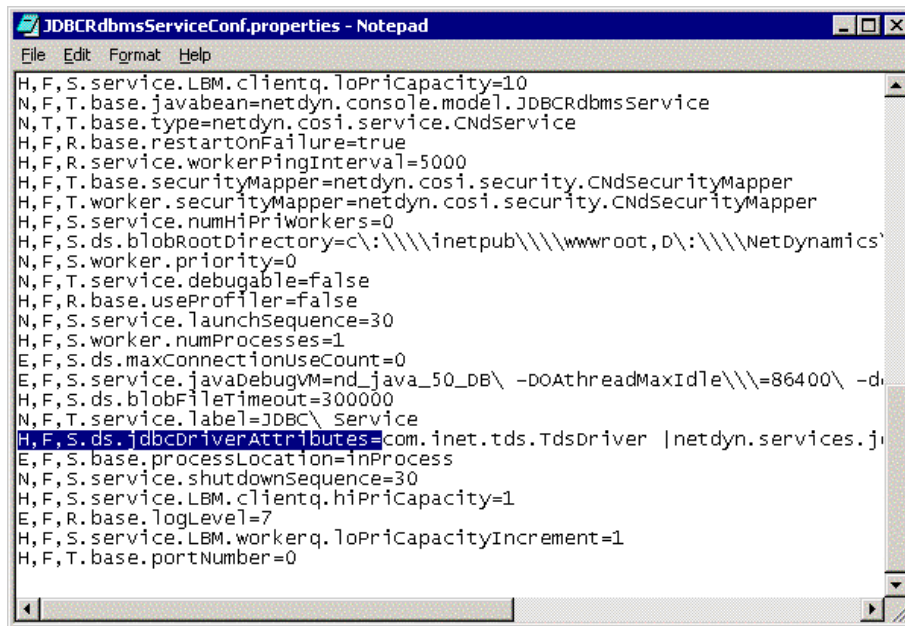
<drive>:\NetDynamics\NetDynamics50\Program\Properties\DefaultPartition\DeploymentConfiguration

<drive>:\NetDynamics\NetDynamics50\Program\Properties\DefaultPartition\Development Configuration Directories.

The Line that needs to be added is shown below. This string can be found on the CD under the jdbc\MS SQL Server directory. Copy the string from the file on the CD and paste it into these three files for consistency in the String format. Paste the following string after the equals sign in these files.

```
com.inet.tds.TdsDriver |netdyn.services.jdbcdsrdbms.worker.CNdJDBCAttributesInetMSSQL
```

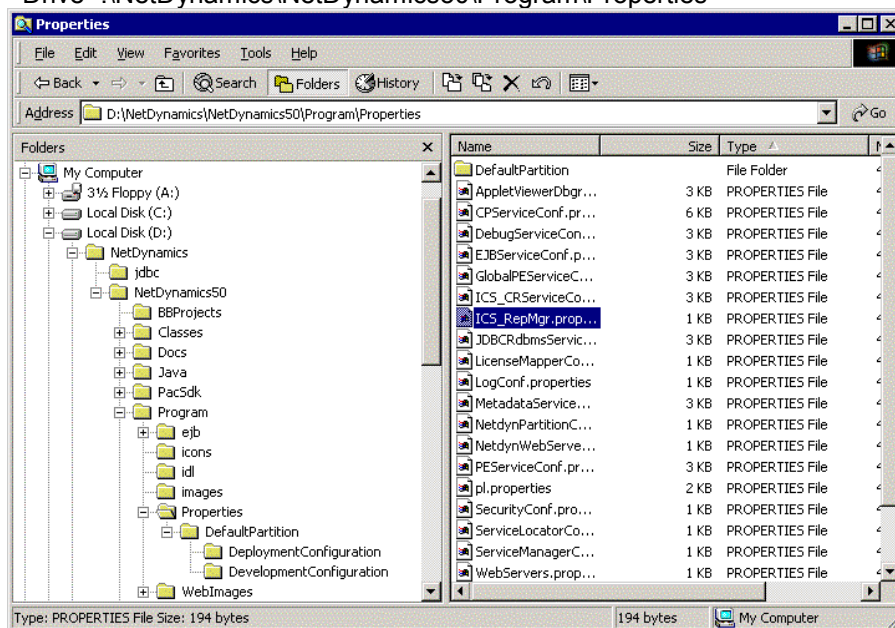
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```

H,F,S.service.LBM.clientq.loPriCapacity=10
N,F,T.base.javabean=netdyn.console.model.JDBCrdmsService
N,T,T.base.type=netdyn.cosi.service.CndService
H,F,R.base.restartOnFailure=true
H,F,R.service.workerPingInterval=5000
H,F,T.base.securityMapper=netdyn.cosi.security.CndSecurityMapper
H,F,T.worker.securityMapper=netdyn.cosi.security.CndSecurityMapper
H,F,S.service.numHiPriWorkers=0
H,F,S.ds.blobRootDirectory=c:\\\\inetpub\\wwwroot, D:\\\\NetDynamics\\
N,F,S.worker.priority=0
N,F,T.service.debugable=false
H,F,R.base.useProfiler=false
N,F,S.service.launchSequence=30
H,F,S.worker.numProcesses=1
E,F,S.ds.maxConnectionUseCount=0
E,F,S.service.javaDebugVM=nd_java_50_DB\\ -DOathreadMaxIdle\\=86400\\ -d
H,F,S.ds.blobFileTimeout=300000
N,F,T.service.label=JDBC\\_service
H,F,S.ds.jdbcDriverAttributes=com.inet.tds.TdsDriver |netdyn.services.j
E,F,S.base.processLocation=inProcess
N,F,S.service.shutdownSequence=30
H,F,S.service.LBM.clientq.hiPriCapacity=1
E,F,R.base.logLevel=7
H,F,S.service.LBM.workerq.loPriCapacityIncrement=1
H,F,T.base.portNumber=0
  
```

3. In the ICS_REPMGR.properties file located in
<Drive>:\NetDynamics\NetDynamics50\Program\Properties



MUST have the following text be pasted over the existing text with the necessary modifications to establish a connection to the database. The user that you supply **MUST** have the TimeWizard database as its default database.

```

#CRPac Database Configuration Information
driver=com.inet.tds.TdsDriver
url=jdbc:inetdae:DATABASE SERVER
user=twuser
password=bendar
ConnectionServerPort=13000
ConnectionServer=localhost
  
```

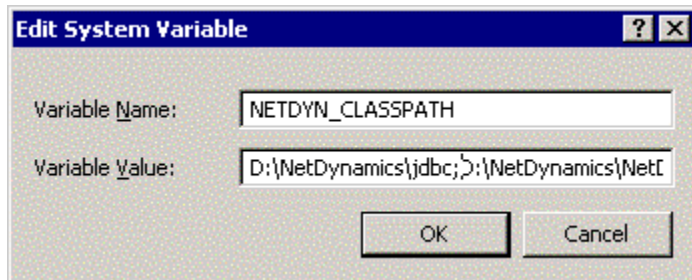
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4. On the Web server, you **MUST** create a directory called jdbc. Into this jdbc directory, copy the Sprinta2000.jar file from the jdbc\MS SQL Server folder on the installation CD.
5. The path to the Sprinta2000.jar file must be added to two system environment variables named CLASSPATH and NETDYN_CLASSPATH. An example of the entry to be placed in each of these two system environment variables follows: <Drive>\jdbc\Sprinta2000.jar;

Below are typical steps for modification of the system environment variables on the Windows 2000 and Windows NT operating systems.

Windows 2000

1. Right clicking on My Computer selecting Properties then the advanced tab then the Environment Variables tab can access the System environment Variables.
2. Select the variables that need to be modified and select edit.
3. Add the following string **NetDynamics\jdbc\Sprinta2000.jar** at the beginning of the Variable Value.

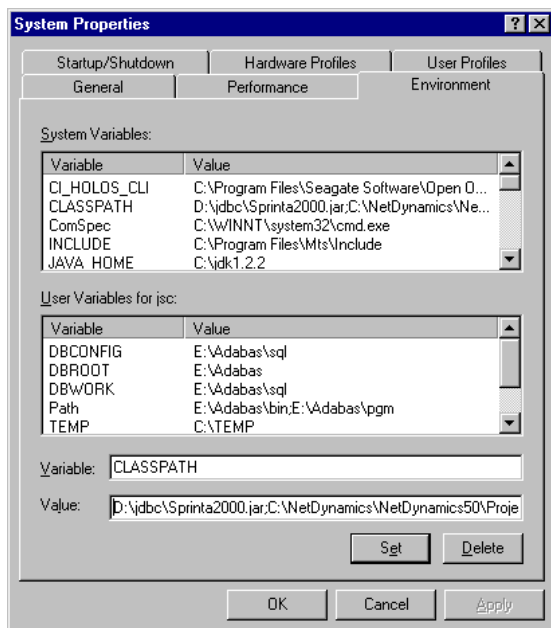


4. Make sure that a semi colon follows the string. When finished select ok to set this value.

Windows NT 4.0

1. Right clicking on My Computer selecting Properties then the Environment tab can access the System environment Variables.
2. Select the variables that need to be modified and Add the following string **NetDynamics\jdbc\Sprinta2000.jar** at the beginning of the Variable Value.

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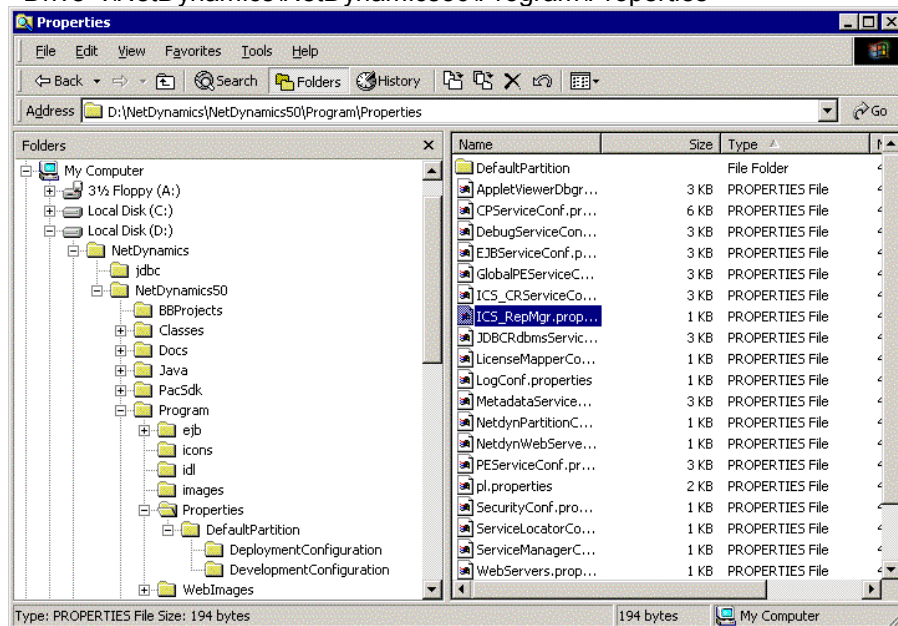
3. Make sure that a semi colon follows the string. When finished select set to set this value.

ORACLE REPORT CONFIGURATION

Located on the installation CD in the jdbc\Oracle folder is a file named Classes111.zip.

1. In the ICS_REPMGR.properties file located in

<Drive>:\NetDynamics\NetDynamics50\Program\Properties



MUST have the following text pasted over the existing text in this file, with the necessary modifications to establish a connection to the database. The Database server that you supply **MUST** be an alias for the database server's host name. Example if the database server's computer name is acsdev09 then there must be an alias entry in the tnsnames.ora for this server. The entry should look something like this.

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```
Acsdev09 =  
(DESCRIPTION =  
  (ADDRESS_LIST =  
    (ADDRESS = (PROTOCOL = TCP)(HOST = acsdev09)(PORT = 1521))  
  )  
(CONNECT_DATA = (SID = ORCL)(SERVER = DEDICATED))  
)
```

```
#CRPac Database Configuration Information  
driver=oracle.jdbc.driver.OracleDriver  
url=jdbc:oracle:thin:twadmin/admintw@acsdev09:1521:ORCL  
user=twadmin  
password=admintw
```

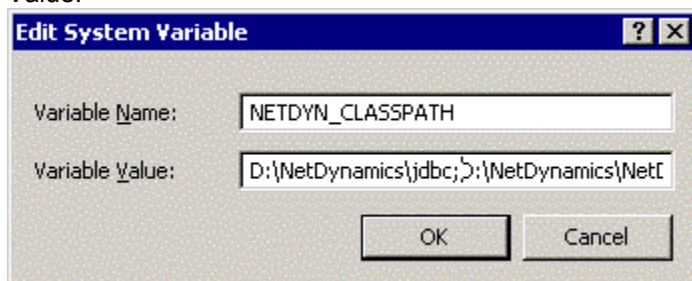
```
ConnectionServerPort=13000  
ConnectionServer=localhost
```

2. On the Web server, you **MUST** create a directory called jdbc. Into this jdbc directory, copy the Classes111.zip file from the jdbc\Oracle folder on the installation CD.
3. The path to the Classes111.zip file must be added to two system environment variables named CLASSPATH and NETDYN_CLASSPATH. An example of the entry to be placed in each of these two system environment variables follows: <Drive>:\jdbc\Classes111.zip;

Below are typical steps for modification of the system environment variables on the Windows 2000 and Windows NT operating systems.

Windows 2000

1. Right clicking on My Computer selecting Properties then the advanced tab then the Environment Variables tab can access the System environment Variables.
2. Select the variables that need to be modified and select edit.
3. Add the following string **NetDynamics\jdbc\classes111.zip** at the beginning of the Variable Value.

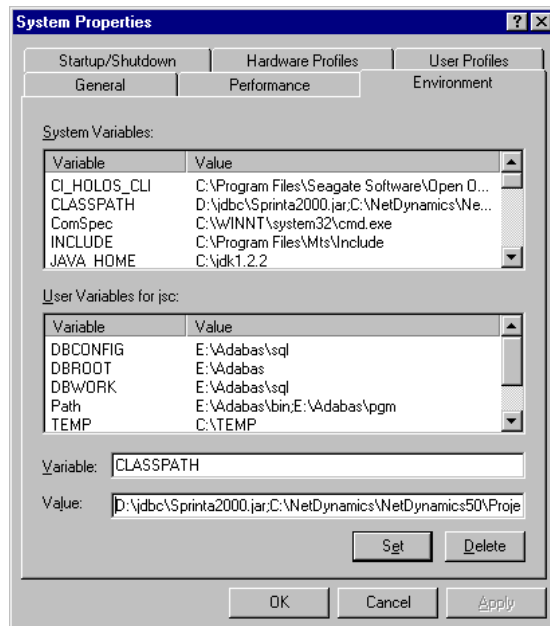


4. Make sure that a semi colon follows the string. When finished select ok to set this value.

Windows NT 4.0

1. Right clicking on My Computer selecting Properties then the Environment tab can access the System environment Variables.
2. Select the variables that need to be modified and Add the following string **NetDynamics\jdbc\classes111.zip** at the beginning of the Variable Value.

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3. Make sure that a semi colon follows the string. When finished select set to set this value.

LICENSING

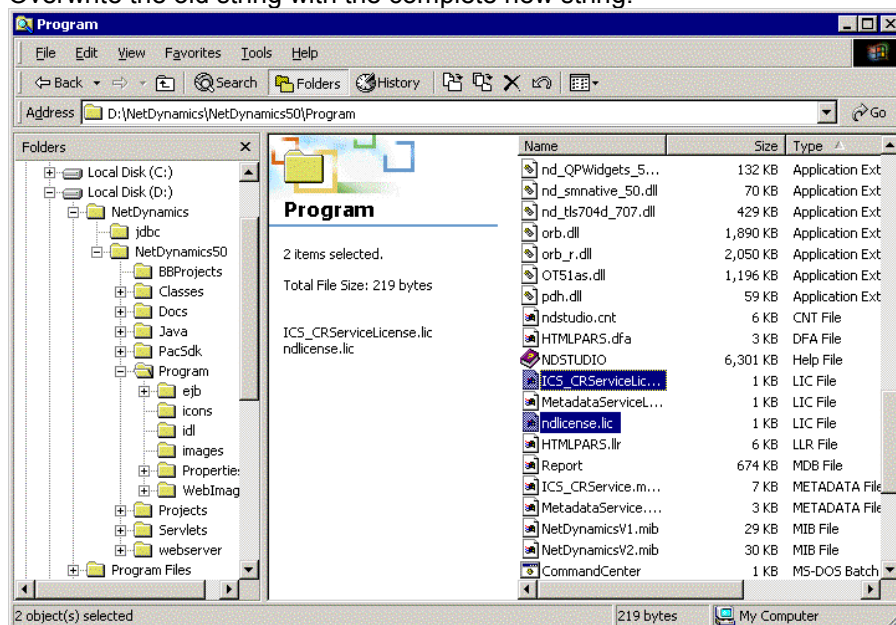
After the IndusPAC installation for Crystal Reports, the licensing files must be edited.

1. These two files are to be modified with the license strings that LaborLogix provides. The strings that are to be used are the ones without backslashes.

In the ICS_CRServiceLic file use the string that starts with ICS ICS_CRService

In the ndlicense file use the string that starts with NetDynamics BaseServer

Overwrite the old string with the complete new string.



2. Located under the <drive>:\ D:\NetDynamics\NetDynamics50\Program\Properties\DefaultPartition

The NetdynPartitionConfig.properties file needs to have valid license strings added.

This file contains three license strings. Overwrite the first two and leave the last one intact. A comma separates the license strings. The license string that starts with ICS ICS_CRService and has backslashes must be pasted over the existing string between the = sign and the first comma. The second string that starts with NetDynamics BaseServer and has backslashes must be pasted over the existing string starting after the first comma and ending before the second comma. Leave the last license string with zero modifications made to it.

When complete the license string should look similar to this.

```
N,F,R.part.license=ICS\ ICS_CRService\ 1\ DOES_NOT_EXPIRE\ UNLIMITED_USERS\ 3\
1261591823002948943b2923be18,NetDynamics\ BaseServer\ 5\ DOES_NOT_EXPIRE\ UNLIMITED_USERS\ 1\
ac6a5fee1263c759bcf0d79f015b\ 0,NetDynamics\ MetadataService\ 1\ DOES_NOT_EXPIRE\ UNLIMITED_USERS\ 3\
e2f575b26d8b1d0ae4e2e682031e
```

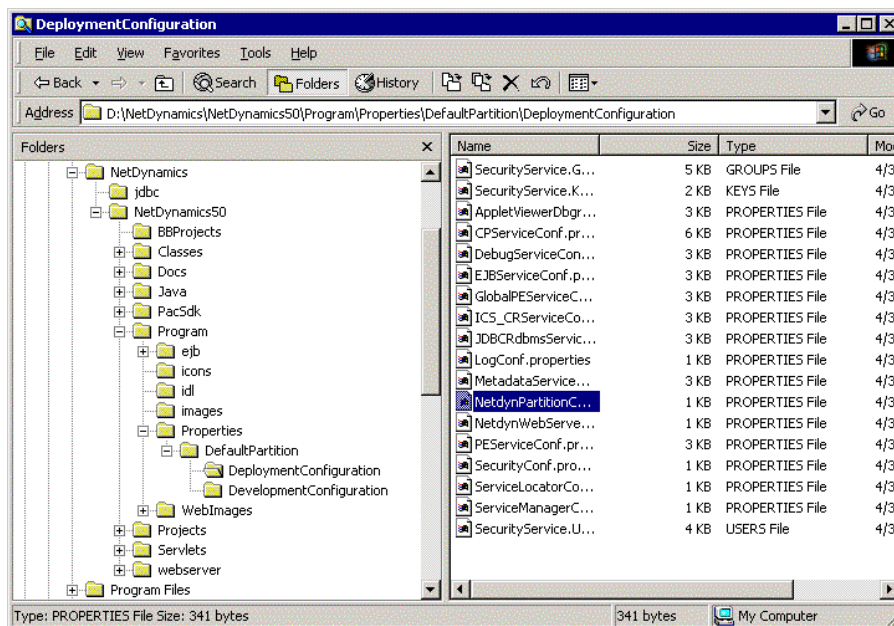
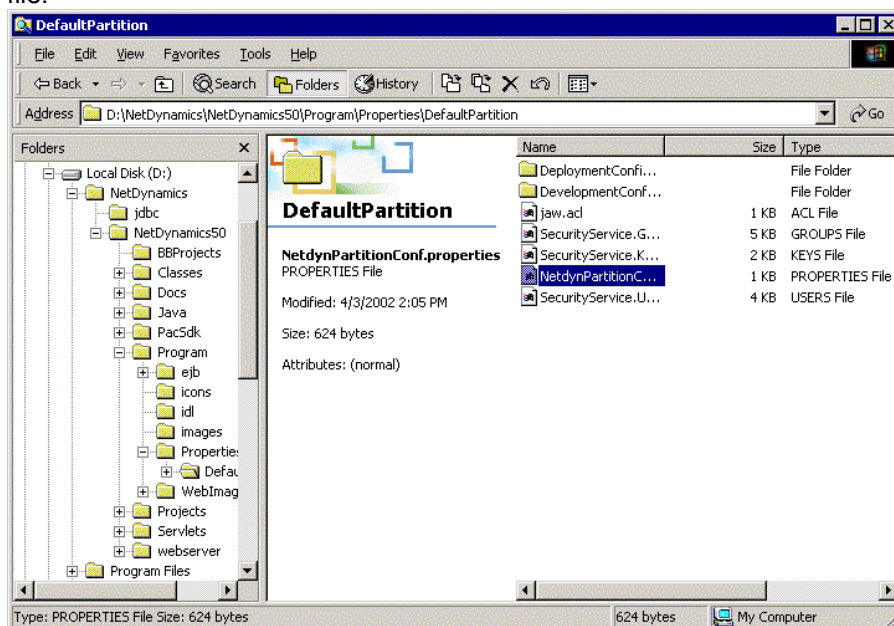
3. Located under the:
<drive>:\NetDynamics\NetDynamics50\Program\Properties\DefaultPartition\DeploymentConfiguration

The NetdynPartitionConfig.properties file needs to have valid license strings added.

The string that starts with NetDynamics BaseServer and has backslashes must be pasted over

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the existing string. Verify that it is the same Base server license that was utilized in the previous file.

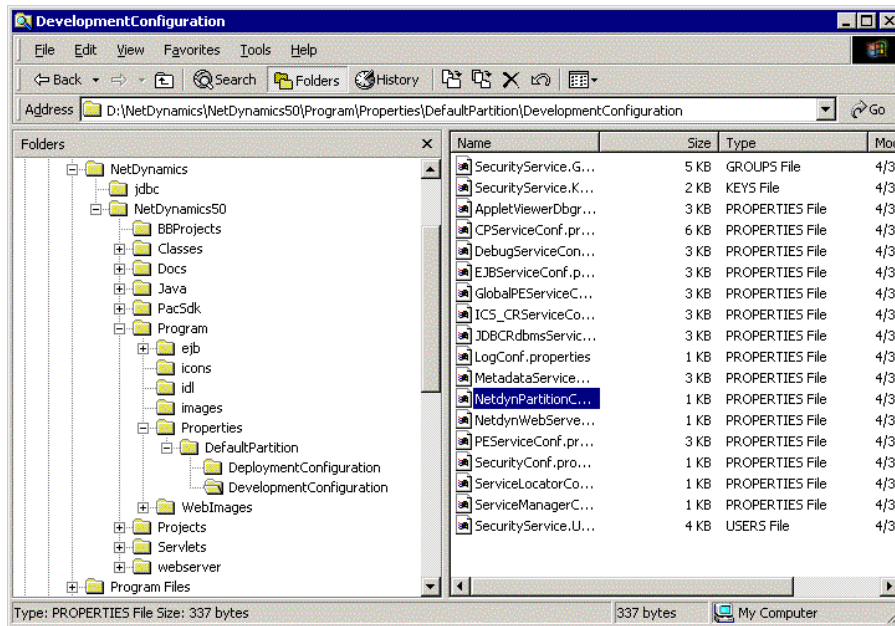


4. Located under the <drive>:\NetDynamics\NetDynamics50\Program\Properties\DefaultPartition\DevelopmentConfiguration

The NetdynPartitionConfig.properties file needs to have valid license strings added.

The string that starts with NetDynamics BaseServer and has backslashes must be pasted over the existing string. Verify that it is the same Base server license that was utilized in the previous file.

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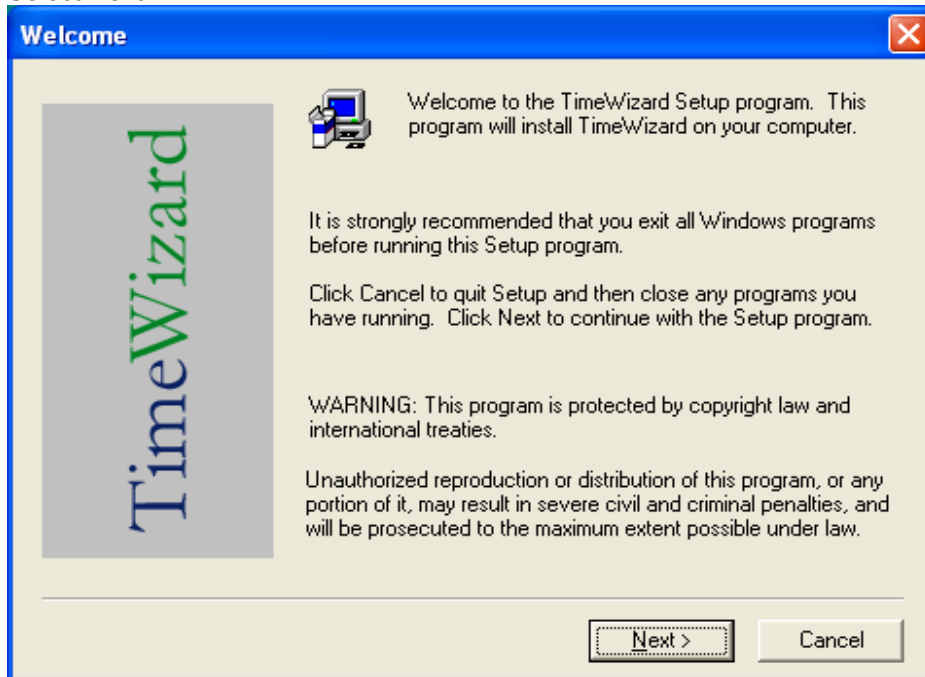
After completing the licensing, confirm that the NetDynamics and Indus Report services are started in the Windows operating system (see the last step of the “IndusPAC Installation” in this guide).

In the NetDynamics Command Center, confirm that the circles to the left of all the service names are green. (For information on accessing the Command Center, refer to “IndusPAC Installation.”) If any of the circles are not green, click Restart on the toolbar.

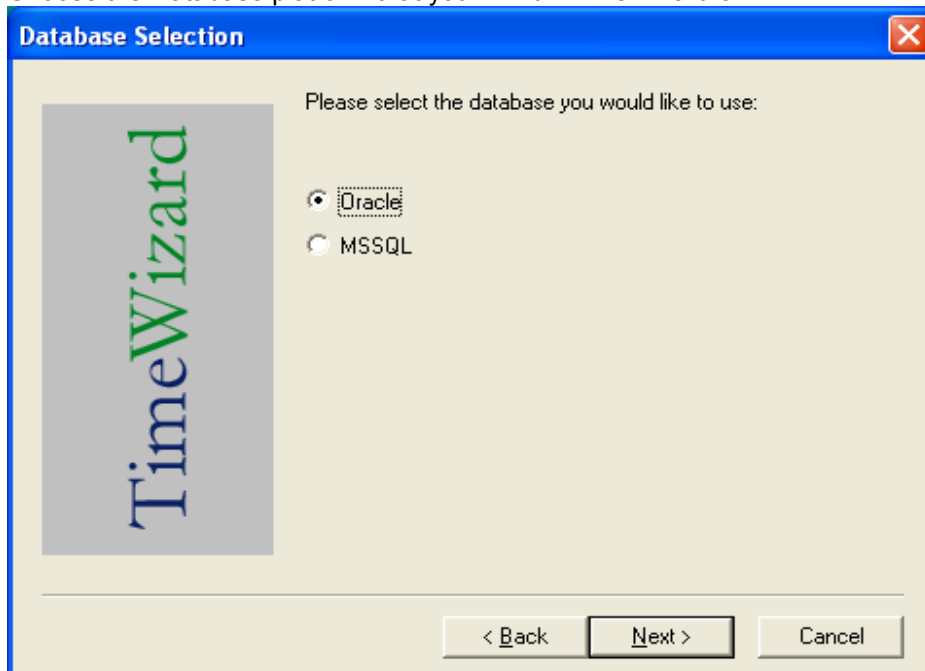
TIMEWIZARD INSTALLATION

Once NetDynamics and Indus have been installed TimeWizard must be loaded.

1. Insert the CD into the drive and select installation (or browse to the setup.exe file)
2. Select Next

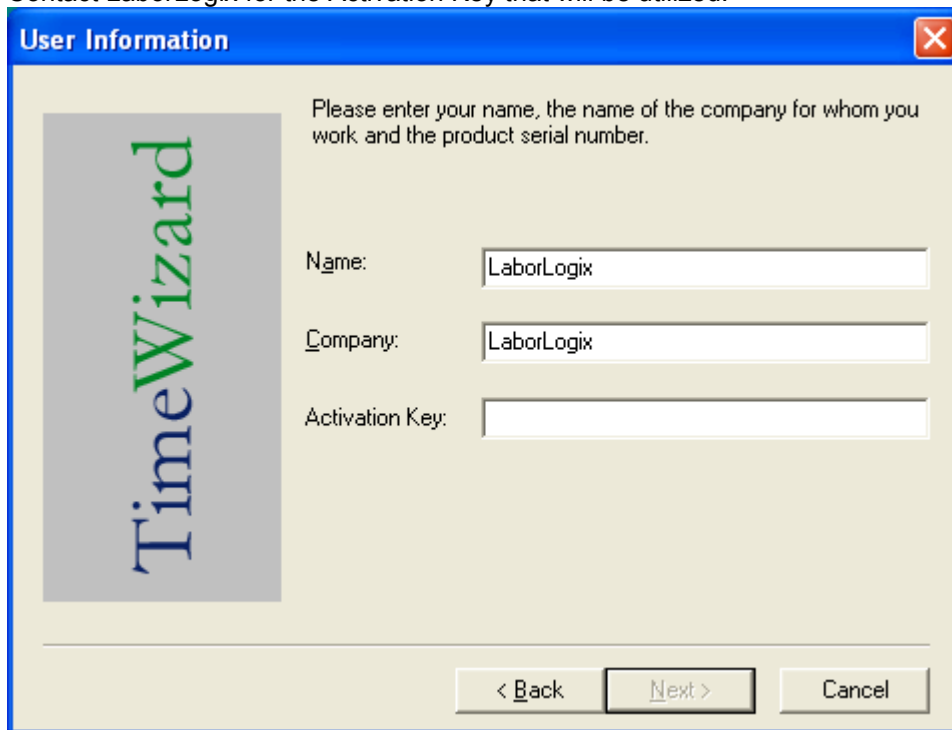


3. Choose the Database platform that you will run TimeWizard on.



TIMEWIZARD IMPLEMENTATION GUIDE

4. Contact LaborLogix for the Activation Key that will be utilized.



The 'User Information' dialog box features a blue title bar with a close button. On the left is a vertical gray bar with the 'TimeWizard' logo. The main area has a light beige background with the instruction: 'Please enter your name, the name of the company for whom you work, and the product serial number.' Below this are three input fields: 'Name:' with 'LaborLogix', 'Company:' with 'LaborLogix', and 'Activation Key:' which is empty. At the bottom are three buttons: '< Back', 'Next >', and 'Cancel'.

User Information

Please enter your name, the name of the company for whom you work, and the product serial number.

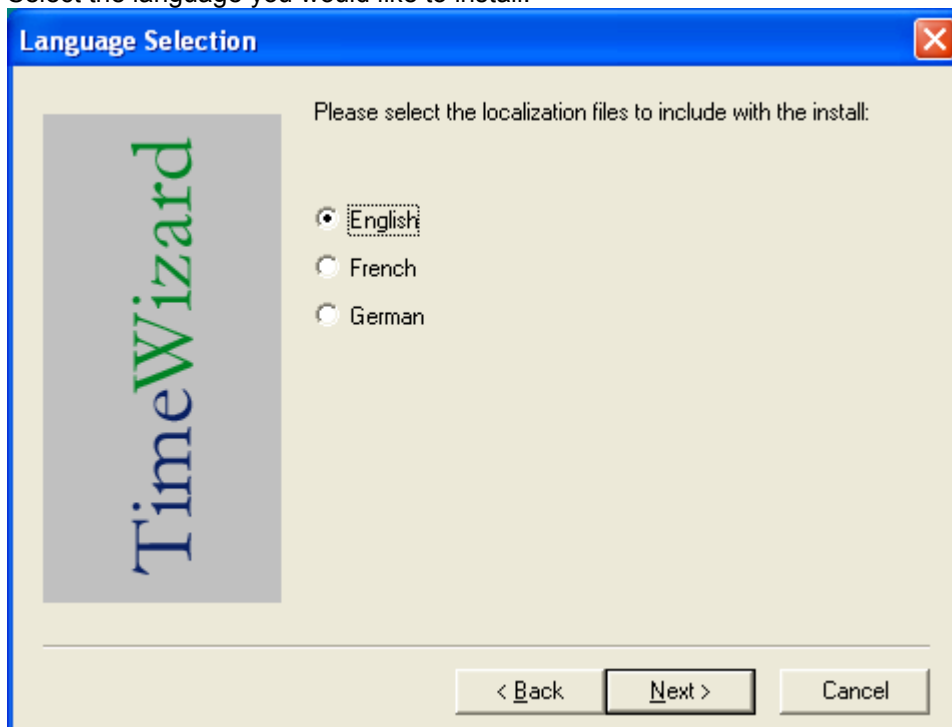
Name: LaborLogix

Company: LaborLogix

Activation Key:

< Back Next > Cancel

5. Select the language you would like to install.



The 'Language Selection' dialog box has a blue title bar with a close button. It includes the same 'TimeWizard' logo on the left. The instruction reads: 'Please select the localization files to include with the install:'. Three radio buttons are listed: 'English' (selected), 'French', and 'German'. The bottom buttons are '< Back', 'Next >', and 'Cancel'.

Language Selection

Please select the localization files to include with the install:

☒ English

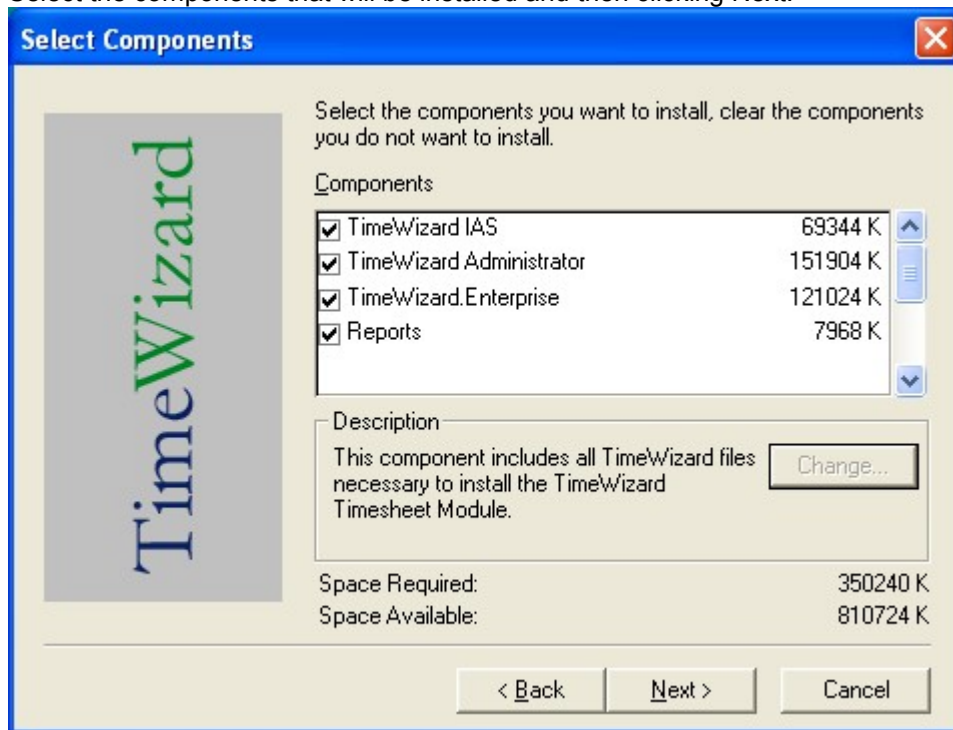
☐ French

☐ German

< Back Next > Cancel

TIMEWIZARD IMPLEMENTATION GUIDE

6. Select the components that will be installed and then clicking Next.



- 7.

Note: Uncheck the TimeWizard TimeSheet option if it is listed – this functionality has been discontinued.

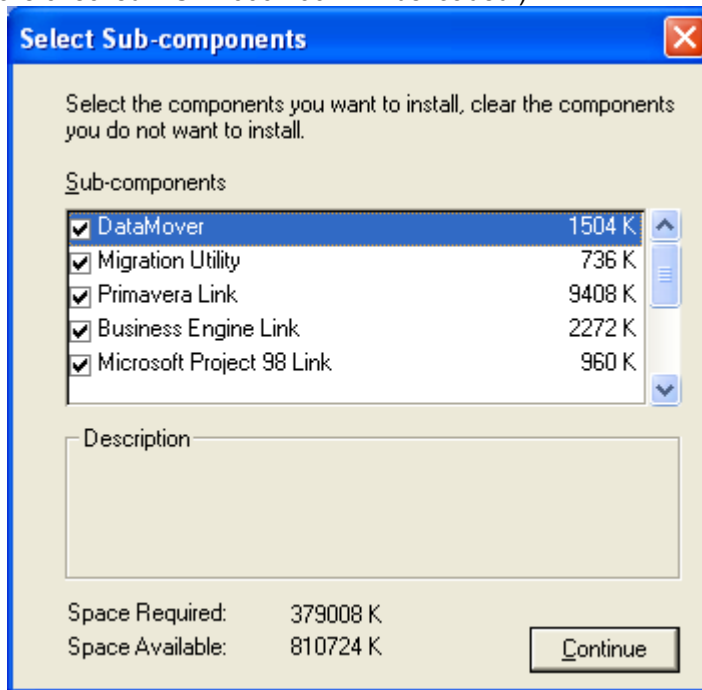
LaborLogix recommends that the IAS portion be installed on a separate machine then the Application Server to improve performance.

Reports should be loaded on the Application server in order for the reports portion of the application to run with better results.

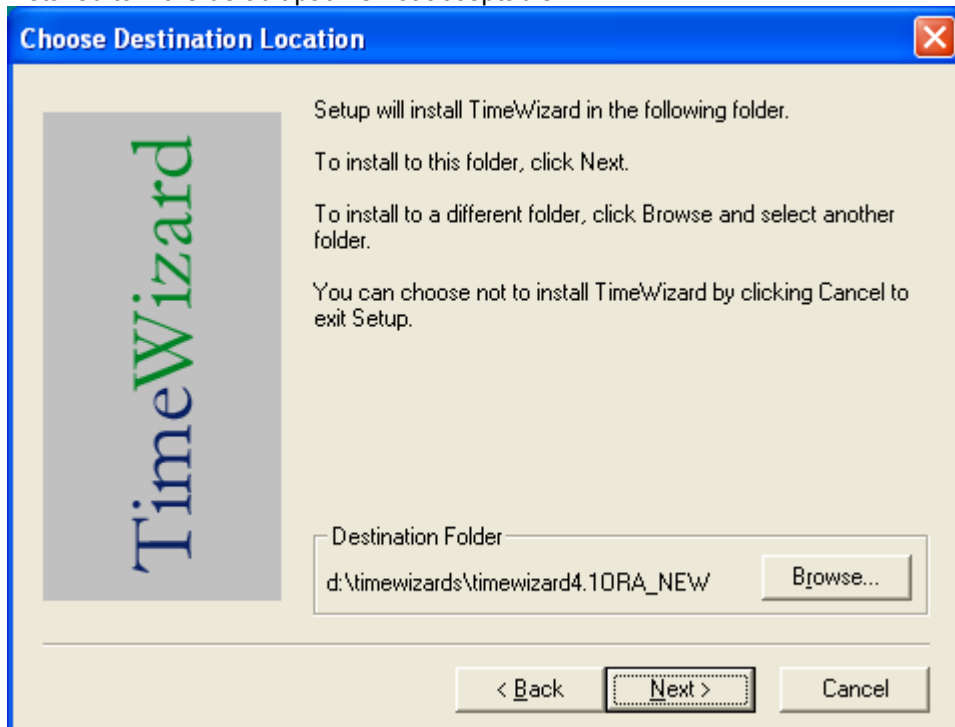
Note: The reports folder will need to be shared with Permissions assigned to the Domain account that the Indus Report service has been logged on as.

TIMEWIZARD IMPLEMENTATION GUIDE

8. In the TimeWizard IAS choice select change and select the Microsoft Project link desired. (if both are checked MSP 2000/2002 will be loaded.)

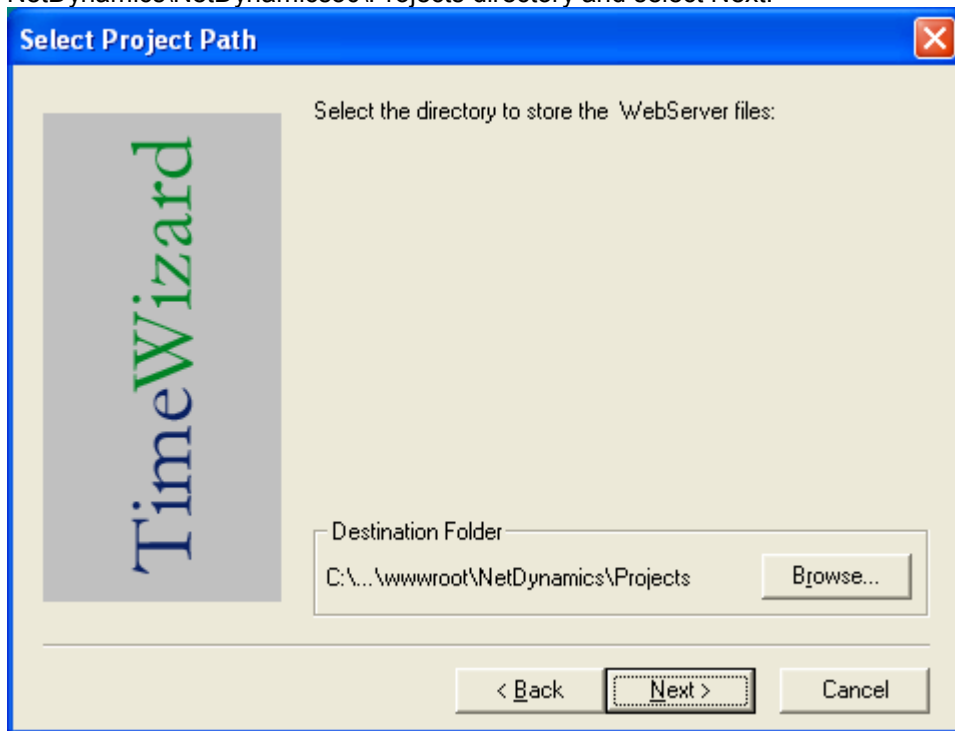


9. Select the drive and directory that you would like the TimeWizard and reports portion to be installed to if the default path is not acceptable.

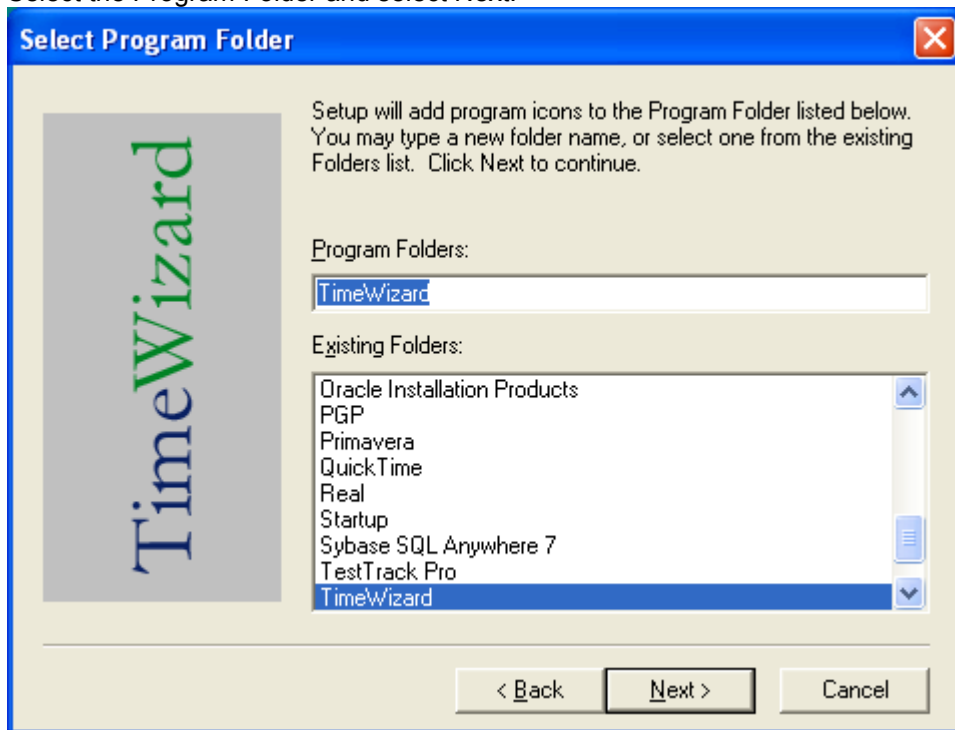


TIMEWIZARD IMPLEMENTATION GUIDE

10. By default the NetDynamics directory will be located. If not browse to the NetDynamics\NetDynamics50\Projects directory and select Next.

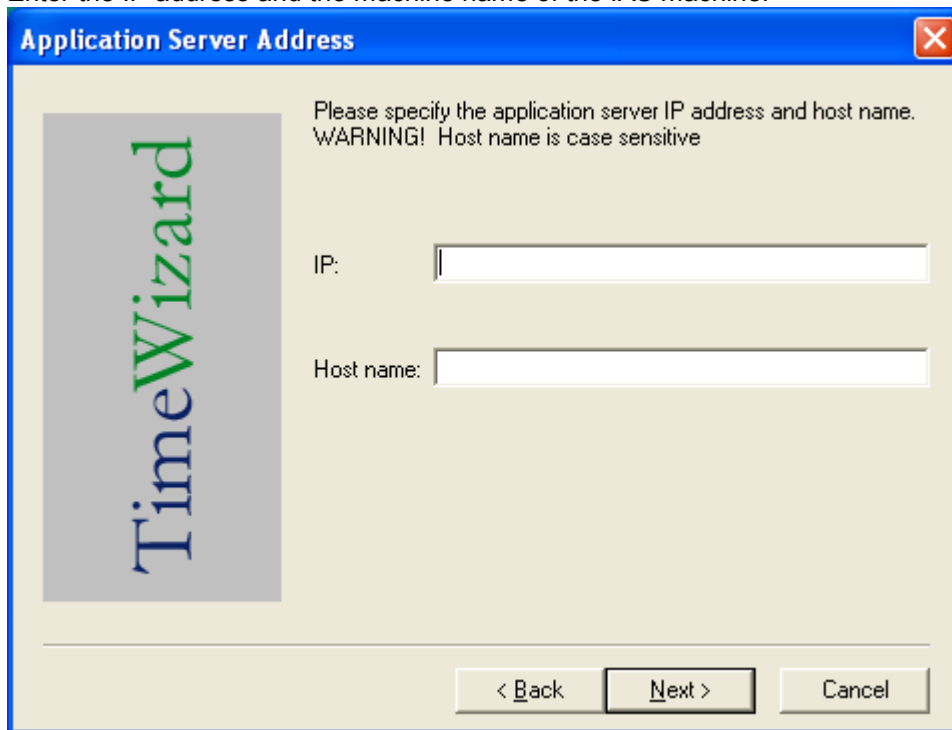


11. Select the Program Folder and select Next.



TIMEWIZARD IMPLEMENTATION GUIDE

12. Enter the IP address and the machine name of the IAS machine.



The dialog box is titled "Application Server Address" and features the TimeWizard logo on the left. It contains a warning message and two input fields for IP and Host name, with navigation buttons at the bottom.

Application Server Address

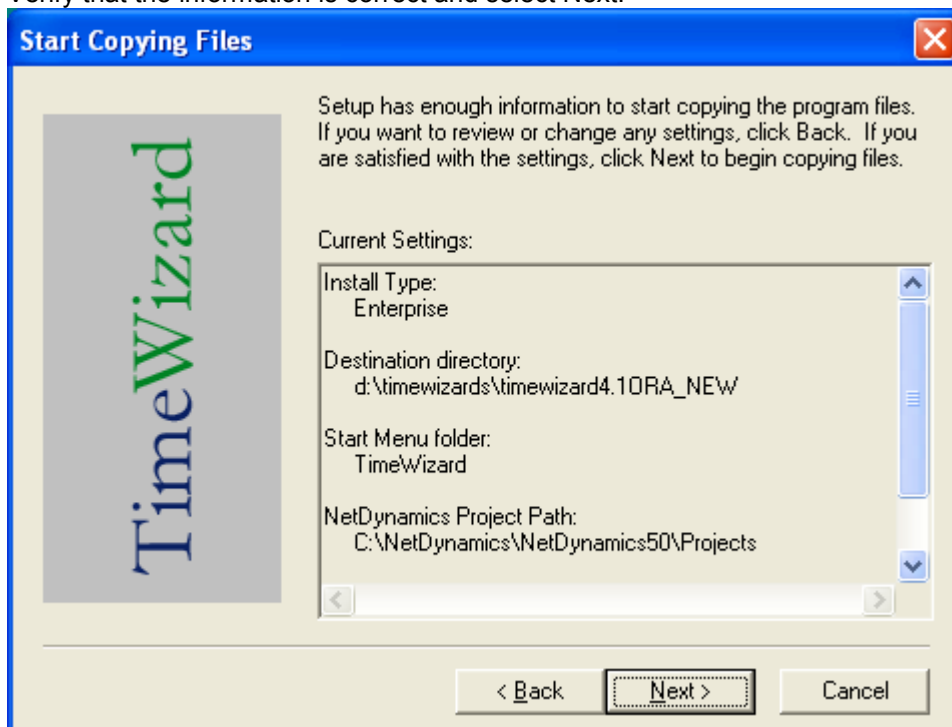
Please specify the application server IP address and host name.
WARNING! Host name is case sensitive

IP:

Host name:

< Back Next > Cancel

13. Verify that the information is correct and select Next.



The dialog box is titled "Start Copying Files" and features the TimeWizard logo on the left. It displays current settings for installation type, destination directory, start menu folder, and NetDynamics project path, with navigation buttons at the bottom.

Start Copying Files

Setup has enough information to start copying the program files.
If you want to review or change any settings, click Back. If you are satisfied with the settings, click Next to begin copying files.

Current Settings:

Install Type:
Enterprise

Destination directory:
d:\timewizards\timewizard4.10RA_NEW\

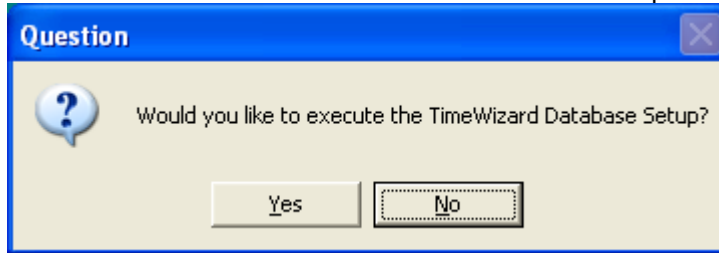
Start Menu folder:
TimeWizard

NetDynamics Project Path:
C:\NetDynamics\NetDynamics50\Projects

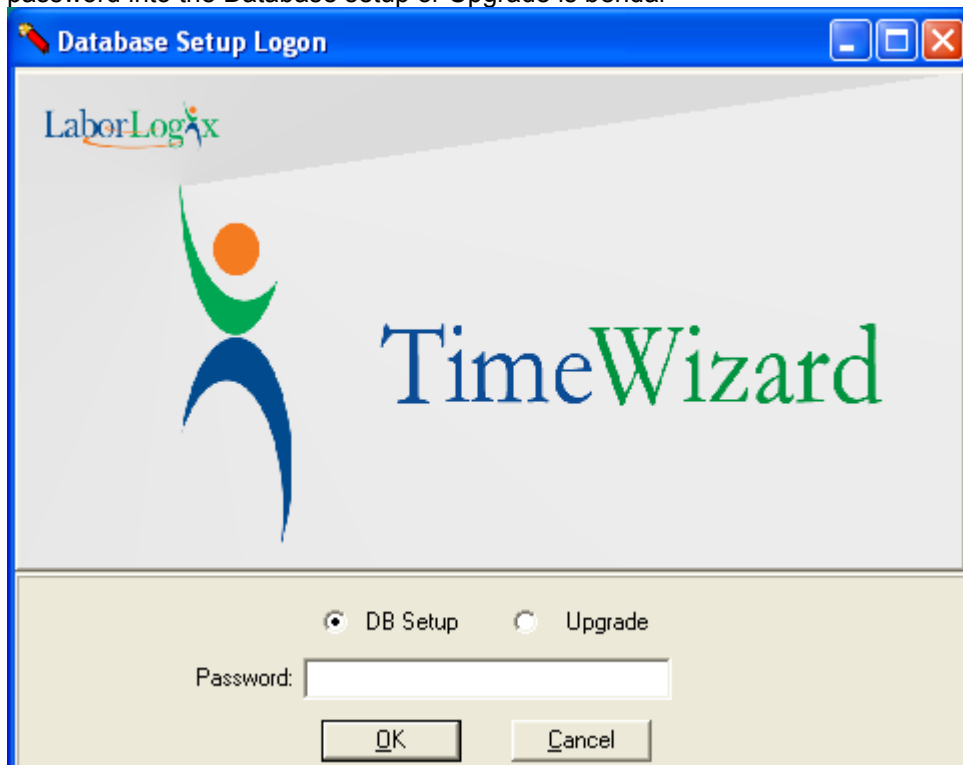
< Back Next > Cancel

TIMEWIZARD IMPLEMENTATION GUIDE

14. After loading the IAS application files TimeWizard will prompt you to create the database. If you wish to do this select Yes. Otherwise select No and skip to step 23.



15. Select the DB Setup radio button if this a new install or Upgrade if this is an upgrade. The Login password into the Database setup or Upgrade is bendar



TIMEWIZARD IMPLEMENTATION GUIDE

16. Fill in the connection parameters for the database

Setup Database

Database Server: MS SQL Server

Language :
☒ English ☐ French
☐ German

Decimal Representation:
☒ Period (.)
☐ Comma (,)

Database Characteristics:
Server Name: localhost
Database Name: tw42
User Name (DB Owner): sa
Password (DB Owner): xxxxxxxx

Application Server Characteristics:
Application server path for the program files: D:\TIMEWIZARDS\TIMEWIZARD4.2MSS\TWIAS\
Application Server Host Name: localhost
Application Port #: 10014

Register Log File... Execute Modify View Log Done

Database Server – select appropriate database platform.

Language – select appropriate language (default english).

Decimal Representation – select appropriate decimal symbol (default period (.)).

Server Name – MSSQL – Server name of the database server. Oracle – Alias of the oracle server.

Database Name – MSSQL - Name of the Database created in part 1 of this document. Oracle – Value should equal the Server Name.

User Name: MSSQL – Name of the database owner. Oracle – Name of user containing the database (schema name).

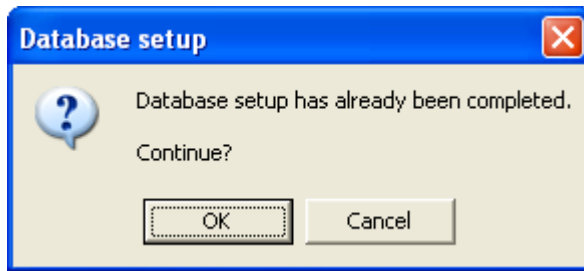
Password: MSSQL – Password of the database owner Oracle – Password of the oracle user (cannot start with a 'p')

Application server path for the program files: Contain the path to the TimeWizard TWIAS directory. Recommend sharing the TWIAS directory on the TimeWizard IAS server and placing a UNC path in this field. Ex. [\\servername\twias](#).

Application server host name: This should contain the network name of the TimeWizard IAS server.

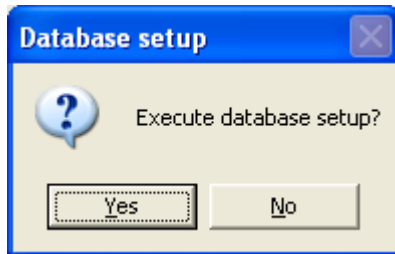
Application Port #: This should contain the port TimeWizard IAS is running on. The only value is 10014.

17. Select yes to save changes after configuration the database setup screen

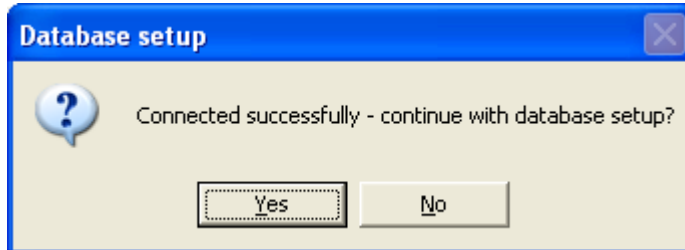


TIMEWIZARD IMPLEMENTATION GUIDE

18. Confirm desire to execute the database scripts.

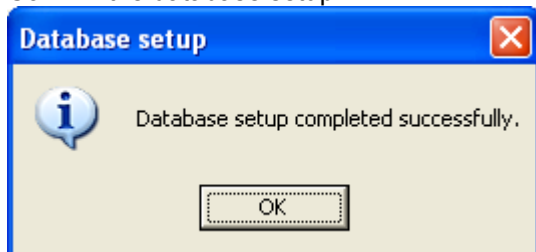


19. Confirm the failsafe.

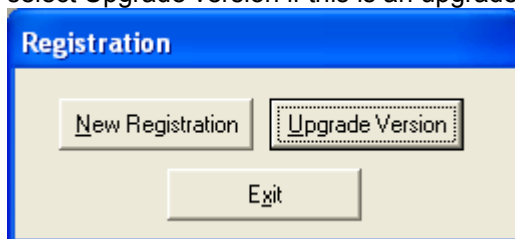


At this point the database scripts will execute – there will be a progress indicator along the bottom of the database setup screen.

20. Confirm the database setup.



21. If this is a net database then register the new database by selecting New Registration, otherwise select Upgrade version if this is an upgrade.

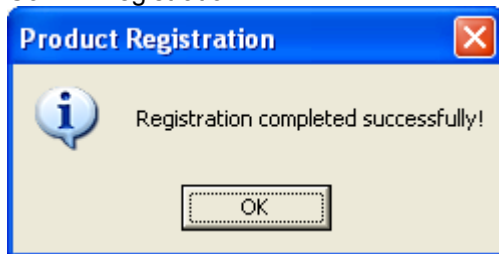


TIMEWIZARD IMPLEMENTATION GUIDE

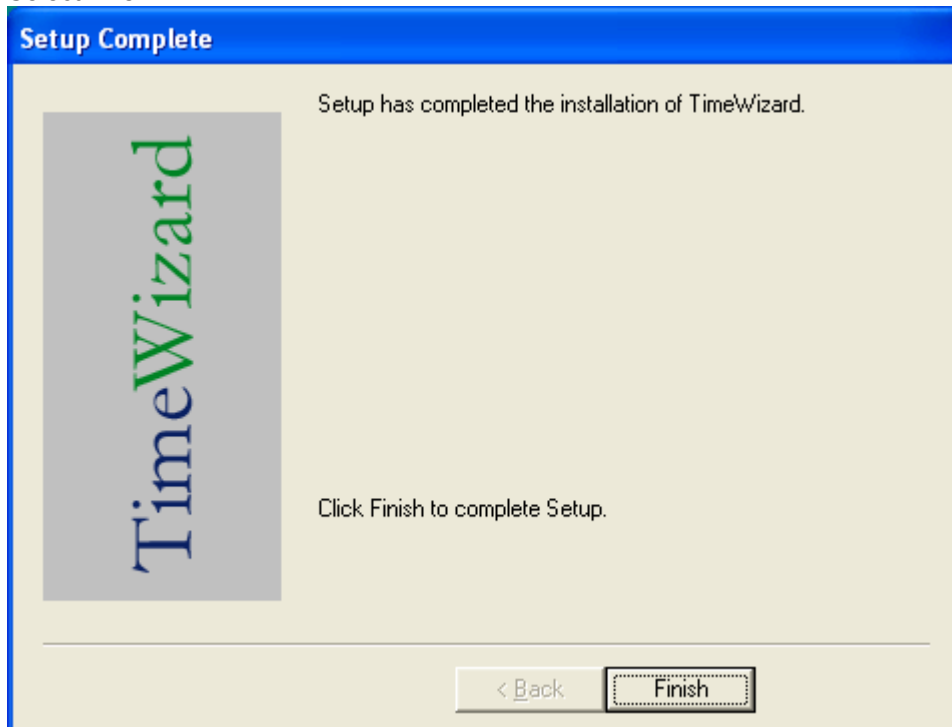
22. Enter the password registration file supplied by LaborLogix. (be sure to have the twreg.dat file (also supplied by LaborLogix) in your TWIAS folder.



23. Confirm registration

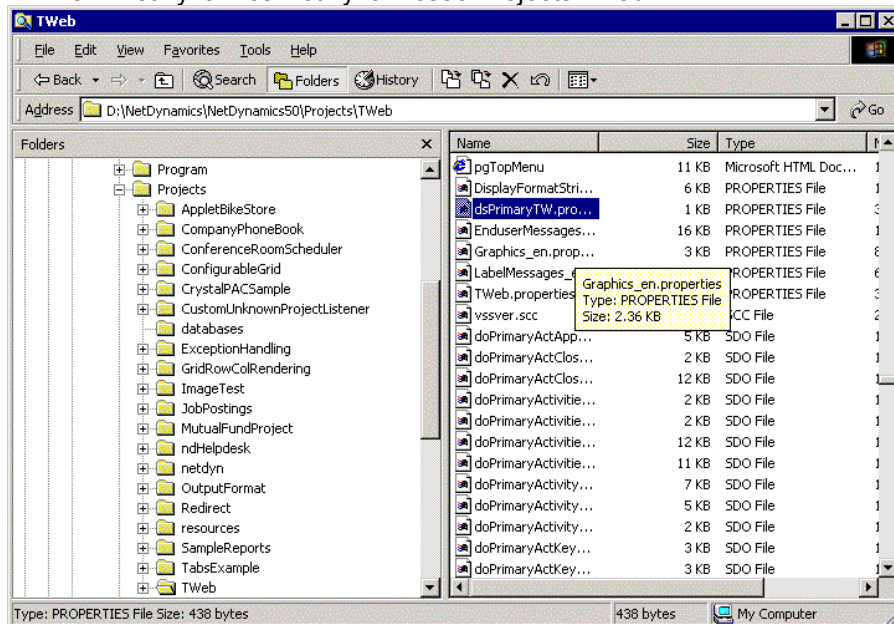


24. Select finish



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25. Once the install is complete, located in the:
<Drive>:\NetDynamics\NetDynamics50\Projects\Tweb



There will be a file called dsPrimaryTW. Depending on which database platform you are working with the dsPrimaryTW.properties file will be filled out differently.

dsPrimaryTW.properties

Locate the dsprimaryTW.properties file located in:

<Drive>:\NetDynamics\NetDynamics50\Projects\Tweb

Oracle Users

DBUSERID=database schema owner
DBPASSWORD=schema password
DBTYPE=ORACLE
DBNAME=
DBSERVER=database server name
DBSCHEMA=
DBPORT=1521
DBINSTANCE=oracle instance that the TimeWizard schema is on
DBLOGO=logo.gif that will be displayed (i.e. company logo, etc)
DBMESSAGE=TimeWizard Timesheet
IPADDRESS0= database server name or IP address (only if static)
TIPS=This is an area where timesheet tips, etc can be stored for the user. The
 acts as a carriage return. Example: Save your timesheet before you exit.
Close timesheet after that.
CONTACT=This is where contact information can stored for the user.
ABOUT=TimeWizard Timesheet 4.2
SECTION_FIRST_HEADER=This displays on the Welcome screen.
SECTION_SECOND_HEADER=same as above
SECTION_FIRST_CONTENT= This is an area where timesheet tips, policy notes, etc can be readily displayed for the user on the Welcome screen. The
 acts as a carriage return. Example: Save your timesheet before you exit.
Close timesheet after that.
SECTION_SECOND_CONTENT= same as above

DATABASE_CON=1

MSSQL Users

DBUSERID=database owner's name
DBPASSWORD= database owner's password
DBTYPE=MSS
DBNAME=database name
DBSERVER= database server name
DBSCHEMA=
DBPORT=1433
DBINSTANCE=
DBLOGO=logo.gif that will be displayed (i.e. company logo, etc)
DBMESSAGE=TimeWizard Timesheet
IPADDRESS0= database server name or IP address (only if static)
TIPS=This is an area where timesheet tips, etc can be stored for the user. The
 acts as a carriage return. Example: Save your timesheet before you exit.
Close timesheet after that.

TIMEWIZARD IMPLEMENTATION GUIDE

CONTACT=This is where contact information can be stored for the user.

ABOUT=TimeWizard Timesheet 4.2

SECTION_FIRST_HEADER=This displays on the Welcome screen.

SECTION_SECOND_HEADER=same as above

SECTION_FIRST_CONTENT= This is an area where timesheet tips, policy notes, etc can be readily displayed for the user on the Welcome screen. The
 acts as a carriage return. Example: Save your timesheet before you exit.
Close timesheet after that.

SECTION_SECOND_CONTENT= same as above

DATABASE_CON=1

Tweb.properties

Locate the Tweb.properties file located in:

<Drive>:\NetDynamics\NetDynamics50\Projects\Tweb

MAILSERVER=mail.company.com	Address of the SMTP mail server where Emails are sent for the Email option in the Timesheet toolbar. This is the mail server that TimeWizard will forward email messages o.
SENDER=twadmin@company.com	This is the email that the sender of TimeWizard email will use. For Online build this is the email address of Timewizard Tech-support
MAILPORT=25	Port address of the SMTP mail server. Default is 25
AAROWSPERPAGE=10	This determines how many activities appear on the screen when adding activities to a users timesheet
LOCALECOUNTRY=US	Country setting of the OS
LOCALELANGUAGE=en	Language of the OS
LONGDATE=MM/dd/yyyy	Date format that appears in the Timesheet application
SHORTDATE=EEE M/d	Date format that appears in the Timesheet application
DECIMALSYMBOL=.	Regional Decimal symbol
GROUPSYMBOL=,	The separators used for grouping in the integer portion of number
FRACTIONSIZ=2	Number of decimal places in TimeWizard system
GROUPSIZE=3	Number of digits between grouping separators in the integer portion of number e.g. 123,456.78 the group size is 3
POSITIVEPREFIX=	Symbol that is added in front of the positive numbers
POSitivesUFFIX=	Symbol that is added at the end of the positive numbers
NEGATIVEPREFIX=-	Symbol that is added in front of the negative numbers
NEGativesUFFIX=	Symbol that is added at the end of the negative numbers
USERDEBUG=false	If set to TRUE it will show debug messages in log file as well as on screen
REPORTDATE=MM-dd-yyyy	Format for the value of the date text parameter in the Reports screen. There are only four allowed formats: MM-dd-yyyy, dd-MM-yyyy, MM/dd/yyyy, dd/MM/yyyy
DETAILTIMESHEET=ON	ON/OFF - User will only have Summary timesheet if set to OFF
SUMMARY_IN_DETAILS=ON	ON/OFF - User will have summary timesheet in Read-only mode if set to OFF

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REPORTHTML=ON	ON/OFF - User will not have radio-button choice for Html format for Reports if this is set to OFF
BUILD=enterprise	online/ <i>Enterprise</i> /Product - This will decide which graphics to appear on the Login and Employee-Menu screens. Also, if set to online, will have link to Online Administration Forms if he is admin User
REPORTS=	Allows users to run reports through HTML if set to yes.
RESOURCECODE_DISPLAY=ON	This displays the resource column on the timesheet if set to ON.
ENFORCE_OS_AUTHENTICATION	This section needs to be set to YES if NT Authentication is to be allowed
APPREJMENU=ON	ON/OFF - This setting allows the department managers the ability to approve and reject timesheets from the welcome screen.
DISPLAY_ONLY_CLOSE_ASSIGN=No	Blank/Yes - This allows the user, while performing a historical correction, to only have the option to add closed assignments to a timesheet
USERNOTESONSUBMIT=Yes	YES/NO - If set to yes the user must enter a note before the timesheet is submitted.
FRAMENAME=	Specify the frame in the company's Intranet html page that you want the TimeWizard application to appear in. By default this option should remain blank for the application to appear in the full browser window.
DOMAIN_IN_LOGIN=No	YES/ - This option is used for users with multiple domains. The user login would be ex. Twadmin/MTSDOMAIN
DEFAULT_CELLTOOLTIP=OFF	<p>OFF or ON</p> <p>new functionality-bubble tip for each timesheet cell describing assignment, date and daily total. This would appear at the bottom of the timesheet frame.</p> <p>A new check-box called cell-detail would appear in the toolbar frame, which would enable or disable this tool-tip help. The default for this check-box is taken from new property (TWeb.properties file) called DEFAULT_CELLTOOLTIP. It's values is ON or OFF</p> <p>Additionally when enabled, this tool-tip will be shown only when user clicks on the gird-cell. It will be hidden as soon as user clicks out of that cell. The information inside this tool-tip will be dynamic and would change without refresh when clicked on other cell.</p>
CHECKSAVE=OFF/ON/ALLOFF	<p>OFF(default) always turned off the check for unsaved data in the timesheet on change of period, employee, department value from their dropdown.</p> <p>ON or blank, or not listed this will turn on the check for unsaved data in the timesheet on change of period, employee, department value from their dropdown.</p> <p>ALLOFF this will turned off the check for unsaved data in the timesheet on change of period, employee, department value from their dropdown. or on click of "BACK" or "FORWARD" button in the IE browser.</p>
NOTES_ON_DELETE_TRANSACTION=ON	If set to ON the message is displayed
DISPLAY_UNSUBMITTED_TS=ON/OFF	If set to ON approver can see unsubmitted timesheets in department approval
SESSION_TIMEOUT_MINUTES=15	Sets the time limit in minutes for user session to be Valid.

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DISPLAY_COLLECT_TS=	ON or blank, or not listed always displays Collect Timesheets link in Dept. Approvals. Include the property and set the value to OFF to disable the menu.
MAIL_ON_TS_SUBMIT=	OFF or blank, or not listed does not submit any emails on Timesheet submit. Include the property and set value to ON, this will send emails to all managers when user submits their timesheets.
REDIRECTURL=	This option is used for a link to be placed on a company's intranet site for the purpose of redirecting a user to an html page for authentication through the intranet site. The user would add this entry to the end of their TWeb.properties file along with the url for the html page that authenticates users. After this page has been accessed the user's welcome screen for TimeWizard will be loaded.
APPR_PEND_LINK_FOR_2_PERIODS= No	If set to 'Yes' doesn't show 'approvals pending' link on Employee homepage for periods other than current and the previous. Default is show ALL.
SAVE_HR_IN_CLOSE_ASSIGN_IN_HC	If set to ON displays closed activity/assignment in editable mode If set to OFF displays closed activity/assignment in non-editable mode. If it is blank which is equivalent to OFF(which is a default setting for this property) setting.
MULTIPLE_CIO_IN_ONE_ACTIVITY=Y MULTI_WEBSERVER=ON/OFF	Set value to 'Y' always. The Web deployment path of the report is changed to show DNS machine name instead of Ip address. New property added to specify that reports feature is using one webserver or multi web server for deployment. ON(Multiple webserver deployment for reports) OFF(Single webserver deployment for reports)
DISPLAY_ONLY_CLOSE_ASSIGN	if 'yes' then only closed assignments will be retrieved for add assignment
AM_PM_TIME_SYSTEM=Y	If set to 'Y' then Clock in Clock out Timesheet System will allow users to enter time in AP/PM time system and will display time in AM/PM format. Otherwise CIO Timesheet will use Military 24 hrs time system
FLAG_DETAILCODEKEY1_SEQUENCE =ON/OFF	If set to ON then detail_code_key_1 will be used as a sequence for CIO timesheet which will allow the user to clock in and out of the same task numerous times during the course of a single day
EXCHANGERATE=Yes	If set to 'Yes' Expense System will use TimeWizard Exchange Rate and will display Exchange Rate, Converted Expense Amount based on the exchange rate on Expense Grid screen. It will show currency conversion based of default company currency in currency selection dropdown on Expense Entry Detail screen.

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RULES_SHOW_IND_MESSAGE	If set to "Y" then timesheets that violate timesheet rules for leave balances receive an alternative message when the user attempts a Submit. If set to the default "N" then the message entered in Define Timesheet Rules is opened. The alternative message is "Leave Balance Exceeded" unless edited in EndUserMsg413 of the EndUserMessages_<language code>.properties file. Note: All violations of timesheet rules other than leave balance rules receive the message entered in Define Timesheet Rules.
CIOCHECKSAVE	Applies only to Clock-In/Clock-Out timesheets. If set to the default value "ON" then the user is prompted to save unsaved timesheet modifications before changing a period, department, or employee, and before exiting or clicking any toolbar icon other than Save Timesheet. If set to any other value, no warning message is displayed, except when the timesheet has unsaved transactions and the user clicks Apply Filter or Close Assignment.

Additional property settings are located in the Timwiz.ini files in the directory where TimeWizard is installed and in the TWIAS subdirectory. When you change a setting in one Timwiz.ini file, copy and paste the file to overwrite the other Timwiz.ini file so that the two files have identical settings.

In the [Setup] section:

AdjustETCForADP	If set to "1" Table Retrievals that map data to the ETC field use TimeWizard's ETC calculations as well as values from the external source. The default setting of "0" (or any value other than "1"), does not further adjust the imported values to include TimeWizard timesheet transactions.
LeaveActivityColumnMapping	For Table Retrievals that map to a Leave Balance field, if set to "act_ukey1" the Leave Balance drop-down list displays values from the first activity field. If set to the default value "description" or any other value, the drop-down list displays values from the activity Description field to identify the activity to select. Note: The field name "act_ukey1" is case sensitive.
ADPLink	This property provides backward compatibility with a legacy custom application. Unless your organization is using that specific application, maintain the default setting: 0

In the [Dbridge OutFile Directory] section:

DbridgeOutFileDir	This property provides backward compatibility with a legacy custom application. If your organization is not using that specific application, the setting does not affect the system.
-------------------	--

IAS Installation

The TimeWizard IAS (Information Application server) component contains all of the following:

1. Interface Controller executables.
2. Database Setup executable.
3. SQL scripts for database setup.
4. Log file directories for Interface Controller.
5. Datamover utility (if selected during install).
6. Migration executable (if appropriate activation key is entered during install).

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7. TimeWizard IAS service executable.

To install go to the TimeWizard IAS application server and insert TimeWizard installation CD. Enter the appropriate activation key and select the TimeWizard IAS component and continue install. See page 23 for details.

IAS Configuration

TimeWizard IAS controls all of the Interface controller functions. It can run as a service or as a process (by default it gets installed as a service). The service listens for requests from a client TimeWizard administrator on port 10014. To run TimeWizard IAS as a service please follow the recommendations listed below:

1. After installation go to Start>Settings>Control Panel and double click on the services icon.
2. Find the service named TimeWizard IAS and click on the Startup button.
3. Select the 'Log On As': radio button and log the service on with a domain account. This is necessary in order for the TimeWizard IAS service to resolve UNC paths.
4. Apply changes and start the service.

To run TimeWizard IAS as a process please follow the recommendations listed below:

1. Go to Start>Settings>Control Panel and double click on the services icon.
2. Find the service named TimeWizard IAS and click on the Startup button.
3. Select the disable radio button under the startup heading.
4. Find the tw_serv.exe on the TimeWizard IAS application server (by default it is installed to c:\program files\timewizard\twias).
5. Create a shortcut to the tw_serv.exe and place it in the startup folder located in the following path c:\winnt\profiles\all users\start menu\startup. This will force the service to run as a process every time the server is logged into. The TimeWizard IAS service will be visible from the desktop.

If TimeWizard IAS is run as a service ASP mail server must be installed on the TimeWizard IAS application server if the mail feature (exception processor) of the interface controller is to be used (see Chapter 9 for installation and configuration instructions pertaining to ASP mail.). If TimeWizard IAS is run as a process the TimeWizard IAS application server must have a configured MAPI compliant mail client loaded if the mail feature (exception processor) of the interface controller is to be used.

Database

TimeWizard Database setup can be broken down into three parts. Part 1 is database container setup, which is done on either an Oracle or MSSQL server database platform. Part 2 will be the TimeWizard data model setup and Part 3 is database registration.

Part 1: Database Container Setup

The following are general guidelines and recommendations for creating the TimeWizard database for a new install.

MSSQL

The following are recommendations when creating a new TimeWizard database:

The database size for TimeWizard 4.2 should be at least 500MB based on the following assumptions:

- > 500 users or more (100-200 concurrent connections)
- Database contents at any specific interval:**
- > 10,000 or more activities
- > 120,000 or more assignments

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> 600,000 or more timesheet transactions

The log file size for the database should be at least 10% to 30% of the database size based on usage.

Truncate log on checkpoint and Select Into/Bulk Copy should be selected for the database.

TimeWizard 4.2 requires the logon parameters for the database to be based on the DBO and password. Logon parameters cannot be for a User of the database. **Important:** *TimeWizard 4.2 client/server and web products will not function correctly unless the logon used is the DBO of the database.*

Recommend using TCP/IP. Important: Do NOT use Named Pipes, the IAS component (installed as a Service) cannot interact with the Named Pipes protocol. The only workaround is to install IAS to be executed as a process from the Startup folder.

Oracle

Oracle Instance: LaborLogix strongly recommends NOT using the default ORACLE instance, especially for very large databases. Using the default instance can negatively impact Oracle performance. Create your own instance for TimeWizard.

TCP/IP: Recommend using TCP/IP. Do NOT use Named Pipes. The IAS component (installed as a Service) cannot interact with the Named Pipes protocol. If named pipes are absolutely required a workaround is to install IAS to be executed as a process from the Startup folder.

Supported versions: For Client/Server, Oracle 8.1.7 and 9.i.

Initialization Parameters: Recommended increases for the size of the following initialization parameters (minimum):

db_block_buffers = 10M (small/medium database) or 20M (larger databases)
shared_pool_size = 30M (medium database) or 60M (larger databases)
db_block_size = 4096 or 8192 bytes(preferable for the larger databases)

Do not forget that initialization parameter db_block_size cannot be changed in the existing instance; you can specify it only when you create the new one. Other parameters can be changed in the INIT file for the existing database.

TimeWizard 4.2 Oracle Tablespaces

For TimeWizard 4.2, there are seven (7) tablespaces required. The most resource consuming operation occurs when ORACLE writes and reads from the disk. Therefore, it is highly recommended creating datafiles for the different tablespaces in the different disks or partitions.

Important: *TWDYNAMIC, TWLOOKUP, TWREPORT, and TWINTERFACES replace tablespace TWMAIN that was used in TW 2.x.*

1. TWTRANS is used to store the table transactions
Suggested size of the datafile 200M (for ~ 400,000 rows)
2. TWTRANS_INDEX is used to store the indexes of the table transactions
Suggested size of the datafile 100M (for ~ 400,000 rows)
3. TWINDEXES is used to store all indexes except indexes for the table transactions
Suggested size of the datafile 50M

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4. TWDYNAMIC is used *to store static (not highly dynamic) tables*
Suggested size of the datafile 50M
5. TWLOOKUP is used *to store static (not highly dynamic) tables*
Suggested size of the datafile 30M
6. TWINTERFACES is used *to store tables for interfaces*
Suggested size of the datafile 10M
7. TWREPORTS is used *to store tables for reports*
Suggested size of the datafile is 10M

Other Considerations and Recommendations

Estimating Storage for lookup and/or static tables:

If the exact amount of data that is going to be placed on a disk is known, recommend putting it into one extent to minimize the fragmentation.

If the amount of data growth is expected to be small, specify NEXT extent 16K and PCTINCREASE 50%.

Estimating Storage for dynamic tables: For dynamic tables the most important factor is the NEXT extent and PCTINCREASE.

Analyze the current growth rate by doing the following:

Calculate the length of a row in the table. Analyze how many transactions or how many changes per period (per day, per week, per month) can be expected.

Calculate the INITIAL extent to put as much data as possible into one extent. Calculate the NEXT extent based on the knowledge of how fast data will be growing or how many changes you can expect for that table.

Estimating Storage for indexes:

If you have an index by specific columns – take the nominal value of these columns and multiply by rows that you are expecting in this table.

Part 2: TimeWizard database setup

To set up the TimeWizard database, go to the TWIAS server and locate the TWIAS directory. Find the executable file twdbsetu.exe.

Double-click the executable and select the DB Setup radio button. Enter the password "bendar" and click OK. In the Setup Database dialog box, enter the database connection information described below.

Database server: select appropriate database platform.

Language: select appropriate language (default english).

Decimal Representation: select appropriate decimal symbol (default period (.)).

Server Name: MSSQL - Server name of the database server. Oracle - Alias of the oracle server.

Database Name: MSSQL - Name of the Database created in part 1 of this document. Oracle – Value should equal the Server Name.

User Name: MSSQL – Name of the database owner. Oracle – Name of user containing the database (schema name).

Password: MSSQL – Password of the database owner Oracle – Password of the oracle user

TIMEWIZARD IMPLEMENTATION GUIDE

(cannot start with a 'p')

Application server path for the program files: Contain the path to the TimeWizard TWIAS directory. Recommend sharing the TWIAS directory on the TimeWizard IAS server and placing a UNC path in this field. Ex. [\\servername\twias](#).

Application server host name: This should contain the network name of the TimeWizard IAS server.

Application Port #: This should contain the port TimeWizard IAS is running on. The only value is 10014.

Once the appropriate database connection information is filled in, click on the Execute button. **Note: Do not run the database setup twice; this will corrupt any TimeWizard database.** When you see "Database setup completed successfully," the process is complete.

If you receive errors please write down the path to the error log and send it to techsupport@laborlogix.com or contact Technical Support at 1888-463-9973.

Part 3: Database registration

In order to complete LaborLogix must send this step a registration file and a date sensitive registration password must be generated by LaborLogix. The file is called twreg.dat and should be placed in the TWIAS directory on the TimeWizard IAS server. Once the file is copied to this directory find the executable called twreg.exe and double click on it. Click on the 'New registration' button, enter the date sensitive password generated by LaborLogix and click the 'register button'. If you receive a 'registration completed successfully' message the registration is complete. If you receive an error please contact Technical Support.

Client Server

Administrator Installation

To install go to the TimeWizard Administrator machines and insert TimeWizard installation CD. Enter the appropriate activation key and select the TimeWizard IAS component and continue install. See the TIMEWIZARD INSTALLATION section for details.

After installation copy the Timwiz.ini file from the Twias machine or directory and paste over the ini file on the administrator machine(s).

Configuration

Once installation is completed go to Start>Programs>TimeWizard and double click on the administrator shortcut. This will start the administrator module. Select the TWADMIN loginid and enter 'bendar' as the password. Once in the application database configuration can begin. At this time Activities, approval period, employees, Code values, etc. can be setup. Please see the TimeWizard Administrator's Guide for more information.



TimeWizard Client Server and TimeWizard.*enterprise*

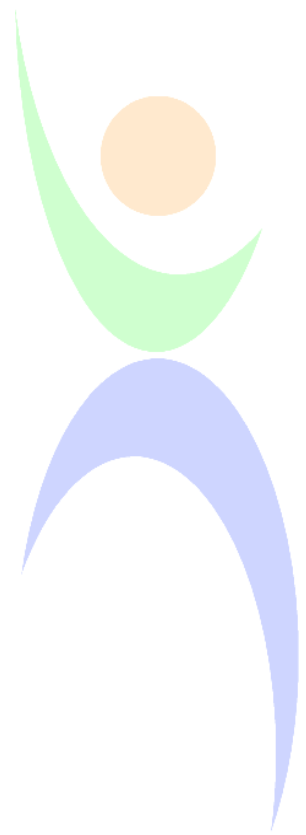
PRE-DEPLOYMENT PACKAGE

LaborLogix, Inc.

7925 Jones Branch Drive
Suite 6400
McLean, VA 22102

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1. Overview

The purpose of this document is to provide information that will help facilitate and ensure a successful installation of TimeWizard and/or TimeWizard.*enterprise*.

2. What should I do prior to the arrival of the TimeWizard Implementation Consultant?

The following are client responsibilities that should be accomplished prior to the installation process:

- a) Ensure your systems configuration meets the minimum system requirements for TimeWizard installation.
- b) Complete and return the Technical Environment Survey to LaborLogix. [See Tab B, Technical Environment Survey](#).
 - 1) Save a copy of the *TAB B, Technical Environment Survey* file to any working directory.
 - 2) Use MS Word to open and edit the document.
 - 3) You will need to complete one survey for your test and production environments, if applicable.
 - 4) Return the survey to your TimeWizard Implementation Consultant no later than ____ weeks before your scheduled installation date.
- c) Follow checklist located in [Tab C, Pre-Deployment Checklist](#).

If you have any questions please feel free to contact your TimeWizard Implementation Consultant.

3. What happens during the TimeWizard.*enterprise* (web) installation?

Assuming all items in Paragraph 2 have been successfully accomplished, the installation process can now begin. Here is a brief overview of the installation process. The designated primary and backup TimeWizard Administrator(s) should participate in the following activities as part of their training.

- a) First step is to conduct a Kick-Off meeting. We will need to discuss how time is defined so that we can setup the timesheet custom field definitions (activity and detail code) appropriately in TimeWizard. We will discuss the process for approving timesheets, closing periods, and scheduling and controlling execution of interfaces between TimeWizard and other systems. We will identify the business rules associated with employees and activities. Discussions with personnel from HR, Finance, Payroll, Billing and IT may be required to identify information flow for integration with other systems. **These are critical steps in the installation process and should be given a high priority.**
- b) Next, verify database connectivity and install the TimeWizard applications on the appropriate machines.

- c) Set-up and configure the TimeWizard server and client machines using the Administrator application.
 - ❑ Custom Fields – What additional fields are required to define your Activities, Detail Codes and Employees?
 - ❑ Approval Periods – What are the periods for filling out your timesheets?
 - ❑ Code Values – What are the actual values for the defined Custom Fields?
 - ❑ Employee Detail – Captures Employee ID, E-Mail Address, Department Ownership, etc.
 - ❑ Activity and Assignment Data
 - ❑ Business Rules – What code values or actions are allowed when entering hours and/or earnings?
 - Employee Permissions and Preferences – Activate certain functions depending on types of employee.
 - Access List – Allow grouping of activities to be available for assignment only to certain groups of people.
 - Detail Codes – How hours and/or earnings are further classified?
 - Standard Text – Provides custom notes for Summary, Timesheet Approval/Rejection, Transaction Notes, etc.
 - ❑ Setup Interfaces to automatically populate Activity and Employee data.
- d) Test TimeWizard for functionality and performance.
- e) Java Development Kit (JDK) will be installed on the application server as part of our installation process, if it is not already installed when the Implementation Consultant arrives.
- f) NetDynamics Application Server Installation: TimeWizard.*enterprise* uses the NetDynamics' Application Server. It is installed as a gateway between your Web server (eg, Microsoft Internet Information System, Netscape Enterprise Server, and Apache Web Server) and the TimeWizard database. It will receive browser requests from users through the Web server and then connect to the TimeWizard database and retrieve the data it requires. It will then dynamically build the Web page using the data and hand the Web page back to the Web server for transmission to the Browser client. Typically, we recommend it be installed on a separate machine because of the functions mentioned above. However, the application server can be co-located on the same machine as your Web server. It must be able to "see" the Web server, as well as, connect to the TimeWizard database using the database client connectivity software. TimeWizard.*enterprise* allows timesheet users to access their timesheets via their Web browser. The TimeWizard Administrator application must be resident on the TimeWizard Administrator's client machine.
- g) Test TimeWizard.*enterprise* for functionality and performance.
- h) TimeWizard training.



Project-driven Workforce Optimization

4. Implementation Recommendations

The following is a set of recommendations for successful implementation of TimeWizard:

- a) Implement TimeWizard pilot project and test the entire data capturing and reporting process. This pilot project may typically take between two to four weeks.
 - ❑ It is recommended that you initially install TimeWizard in a test environment with five to twenty users.
 - ❑ Test all of the processes and develop your procedures using the test environment.
 - ❑ Make any changes necessary and test them thoroughly.
 - ❑ Assign personnel to develop your company's policy and procedure manual for TimeWizard.
 - ❑ Have your Database Administrator copy the test database structure into your production database when everything has been approved.
- b) Train all personnel.
 - ❑ Consider identifying "Super Users" hand picked from each department to receive training first. They can then be the first level of support to your users.
 - ❑ LaborLogix can provide training for TimeWizard users, administrators and managers. Contact your Sales Manager for further information.
- c) Rollout in the production environment: you may want to consider a phased approach when implementing with a large number of users.



Project-driven Workforce Optimization

Legend: C = Certified T = Tested S = Supported

	TimeWizard. Enterprise	TimeWizard Client/Server
MODULE		
TimeWizard Administrator	N/A	Pentium, 64 MB RAM Windows NT 3.5/4.0 Windows 98/2000
DATABASE MANAGEMENT SYSTEM – see Database Server Notes for more details		
Oracle 9i	C	C
Oracle 8i	C	C
Oracle 8.05	C	C
Oracle 7.3.4	C	C
MS SQL 7.0	C	C
MS SQL 2000	C	C
WEB BROWSER		
Explorer 5.5 +	C ¹	
Netscape Communicator 4.51+; Netscape Navigator 4.06+ ; (4.07 for the MacIntosh)	C ²	
APPLICATION SERVER – see Application Server Notes for more details		
NUMBER OF LICENSES	HW CONFIGURATION	
Less than 200	1-2 x dual 400Mhz CPU, 1-4G RAM	Pentium 300 MHz, 256 MB RAM Windows NT 3.5/4.0
200-400	1-3 x dual 400 Mhz CPU, 1- 4G RAM	
400-1000	2-4 x dual 400 Mhz CPU, 1- 4G RAM	
1000 or more	Case by case	
WEB SERVER³		
Microsoft Internet Information Server 4.0	C	
Netscape Enterprise Server 3.0/3.51	C	
Apache 1.3	C	

¹ Windows 98/95 supported only; no Macintosh support

² Windows 98/95 & Mac OS 8.5/7.5.5 supported

³ Requires NT 4.0 with SP4 (Intel processor only)



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APPLICATION SERVER NOTES:

Adding CPUs will increase performance; however, adding more similar machines to the configuration will also provide redundancy, as well as, increase performance. Additional application server requirements apply:

- ❑ Windows NT 4.0 with Service Pack 5 or 6
- ❑ If using MS SQL, MS SQL Service Pack 4 must be installed on application server
- ❑ *NOTE: DEC Alpha not supported*

Typically, the application server should reside on a separate platform from your web server because of the workload it handles. The application server is installed as a gateway between your Web server and the TimeWizard database. It will receive browser requests from users through the Web server and then connect to the TimeWizard database and retrieve the data it requires. It will then dynamically build the Web page using the data and hand that Web page back to the Web server for transmission to the Browser client.

DATABASE SERVER REQUIREMENTS:

NOTE: The recommendations below are based on the following assumptions: 500 users or more (100-200 concurrent connections) and database contents at any specific interval:

- ❑ *10,000 or more activities*
- ❑ *120,000 or more assignments*
- ❑ *600,000 or more timesheet transactions*

Minimal Configuration:

- ❑ Pentium II 400MHz
- ❑ 256 MB RAM
- ❑ 300 MB of disk space for database
- ❑ 25% of database size for log file size

Optimal Configuration:

- ❑ RISC-based processor or multi Pentium processor
- ❑ 512 MB RAM
- ❑ 500 MB of disk space for database
- ❑ 25% of database size for log file size



Project-driven Workforce Optimization

General Information		
Company: _____		Sales Manager: _____
Shipping Address: _____		Implementor: _____
Contacts:	Phone Number	Email Address
Primary: _____	_____	_____
TW Admin: _____	_____	_____
HR: _____	_____	_____
Payroll: _____	_____	_____
Billing: _____	_____	_____
Accounting: _____	_____	_____
PM System: _____	_____	_____
LAN: _____	_____	_____
Web: _____	_____	_____
DB Admin: _____	_____	_____
TimeWizard Applications		
TimeWizard, # of Licenses _____		TimeWizard.enterprise (Web), # of Licenses _____
Email Information		
LAN Type and Version: _____		Topology: _____
Mail System and Version: _____		Fully MAPI Compliant? _____
Database Server Configuration		
Hardware: CPU Speed _____	CPU number: _____	
Hard Disk(s) size(s): _____	Available Disk Space: _____	
OS Platform: _____	Version: _____	
Protocol: _____	If other, specify vendor: _____	
Case Sensitive? _____		
Database Server Configuration: Complete DBMS section appropriate for your organization		
MS SQL Server: Version: _____	Version of last Service Pak applied: _____	
Oracle Version: _____	Version of last EBFs applied: _____	
SQL Net Version: _____	Version of last Patches applied: _____	
	How long has your DBA been working with Oracle _____	
Client Configuration		
Hardware: CPU Speed _____	Model: _____	
RAM: _____	Available Disk Space: _____	Type of LAN Card _____
Windows: (check all that apply) _____	Windows 98 _____	Windows XP _____
if other, specify version: _____	Type of Install: _____	Windows 2000 _____
Browser: _____		
Protocol: _____	If other, specify vendor: _____	If TCP/IP, Ping successfully run? _____
Oracle only - SQL Net Version: _____		
Application Server Configuration (For TimeWizard.Enterprise)		
Hardware: CPU Speed _____	CPU number: _____	
Hard Disk(s) size(s): _____	Available Disk Space: _____	
OS Platform: _____	Version: _____	
Protocol: _____	If other, specify vendor: _____	
Can you ping the database server from your application server? _____		
Web Server: _____	Firewall: _____	
Is your Web server accessible from the Internet or is it only available to your Intranet? _____		
Please answer the following questions		
Approximately how many target clients do you intend for TimeWizard installations? _____		
If these clients have a different configuration, please fill out additional CLIENT Configuration sections to ensure compatibility with TimeWizard.		
Is the installation for a production or test environment? _____ (If test, please submit a second form for production)		
Client: _____	Phone # _____	Date: _____
TimeWizard Reviewer: _____	Phone # _____	Date: _____



Project-driven Workforce Optimization

Please complete the checklist below before the TimeWizard Implementation Consultant arrives.

1. Primary Client Contact

- _____ Complete and return the [Technical Environment Survey](#) to the TimeWizard Implementation Consultant.
- _____ Appoint a TimeWizard Administrator. The TimeWizard Administrator is responsible for setting up and maintaining the employee data, as well as, activities, assignments, permissions, preferences, approval periods, controlling/scheduling interfaces, archiving the database, and purging unused records. LaborLogix will train the TimeWizard Administrator. The TimeWizard Administrator is a technical position and requires an intensive amount of training. **We highly recommend this person be involved in the entire installation and training process.**
- _____ Compile a list of contacts (names, phone numbers) for the LaborLogix Implementation Consultant to include the following:
 - Database Administrator*
 - Network/PC Support*
 - TimeWizard Administrator*
 - Individuals responsible for any links with TimeWizard (i.e., Payroll, Billing, Finance, etc.)*
- _____ Schedule the points of contact to be available during the early stages of the installation period. Ideal time would be during the Kick-Off meeting (first day of installation process).
- _____ Identify other enterprise systems for potential integration. What other software is or will be in use: HR, Billing, Accounting, etc.?
- _____ Ensure that all other systems that TimeWizard will be interfacing with are installed and working properly before the Implementation Consultant arrives to deploy TimeWizard. (e.g. HR, Payroll, Billing, Accounting and/or PM)

2. TimeWizard Administrator

- _____ Gather new hire information: what information does the organization collect on each new employee when that person is hired? What information is needed by each of the following entities: HR, Payroll,

Billing and Accounting. This information is needed for populating the employee fields in TimeWizard.

- _____ Gather sample timesheet(s). Note any changes, additions or deletions that are desired on the timesheet(s). This is needed for setting up the timesheet in TimeWizard.
- _____ Organization Chart – This is needed for departmental codes, timesheet approvals and structuring the TimeWizard interfaces with the HR, Payroll, Billing and Accounting systems, etc.
- _____ Sample reports from various departments such as HR, Payroll, Billing, Accounting, etc. These reports should be a sampling from the various levels in each of those functional areas. This is needed to understand what type of information is required from TimeWizard.

3. Network Support Contact

- _____ Validate the [hardware requirements](#) to ensure systems can support the TimeWizard product.
- _____ Identify the file server where the TimeWizard network application files will reside and the location (directory/folder). Every TimeWizard client machine must have visibility to the TimeWizard network directory. Note: The TimeWizard database and network application files may reside on the same network server, if desired.
- _____ Grant write permission to the specified network location for the network install. TimeWizard Administrators will need write permission and all others will need read-only permissions.

4. Database Administrator

- _____ Validate the database and version number to ensure it meets TimeWizard [minimum requirements](#).
- _____ Identify the server name for where the TimeWizard database will reside and the location of the database. The TimeWizard database may reside locally within a LAN environment, or at a remote location in a WAN environment using TCP/IP for remote access on a T1 or fractional T1 direct link.
- _____ The DBA must create an empty database on the server. See Database Notes below.



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- _____ The DBA should make sure that all client machines have the appropriate client connectivity software and TCP/IP (if required) loaded on each client machine that requires access to the TimeWizard database. Test the database connectivity for each client using PING or other methods.
- _____ Validate the database server name, application server name, and the path (preferably a UNC network path).
- _____ If possible provide the TimeWizard Implementation Consultant access to a tool such as SQL+ or WISQL for use during the installation process.
- _____ Test connectivity from the client browser to the web server. (For TimeWizard. *enterprise* installation only)

DATABASE NOTES:

A. MS SQLServer

The following are recommendations when creating a new TimeWizard database:

- 1) If using MS SQLServer 6.5, TimeWizard requires that MS SQL Server Service Pack 4 or 5 is installed on the database server and the NetDynamics application. If Service Pack 4 is not installed, MS SQLServer will cause severe performance problems for TimeWizard.*enterprise*.
- 2) If using MS SQLServer 7.0, recommend installing at a minimum Service Pack 1 which fixes some memory leakage problems in 7.0
- 3) The database size for TimeWizard databases should be at least 500MB based on the following assumptions:

500 users or more (100-200 concurrent connections)

Database contents at any specific interval:

10,000 or more activities

120,000 or more assignments

600,000 or more timesheet transactions

- 4) The logfile size for the database should be at least 10 to 30% of the database size based on usage.
- 5) Truncate log on checkpoint should be selected for the database.



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- 6) Select Into/Bulk Copy should be selected for the database
- 7) TimeWizard requires the logon parameters for the database to be based on the DBO and password. Logon parameters cannot be for a user of the database. **Important:** *TimeWizard client/server and web products will not function correctly unless the logon used is the DBO of the database.*

B. Oracle

Oracle Instance: LaborLogix strongly recommends NOT using the default ORACLE instance, especially for very large databases. Using the default instance can negatively impact Oracle performance. Create your own instance for TimeWizard.

TCP/IP: Recommend using TCP/IP. Do NOT use Named Pipes. The IAS component (installed as a Service) cannot interact with the Named Pipes protocol. If Named Pipes are absolutely required; a workaround is to install IAS to be executed from the Startup folder.

Initialization Parameters: Recommended increases for the size of the following initialization parameters (minimum):

db_block_buffers = 10M (small/medium database) or 20M (larger databases)
shared_pool_size = 30M (medium database) or 60M (larger databases)
db_block_size = 4096 or 8192 bytes(preferable for the larger databases)

Do not forget that initialization parameter db_block_size cannot be changed in the existing instance, you can specify it only when you create the new one. Other parameters can be changed in the INIT file for the existing database.

TimeWizard TableSpaces

For TimeWizard, there are 7 tablespaces required:

Important: TWDYNAMIC, TWLOOKUP, TWREPORT, and TWINTERFACES replace tablespace TWMAIN that was used in TW 2.x.



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1. TWTRANS is used to store the table transactions -
Suggested size of the datafile 200M (for ~ 400,000 rows)
2. TWTRANS_INDEX is used to store the indexes of the table transactions
Suggested size of the datafile 100M (for ~ 400,000 rows)
3. TWINDEXES is used to store all indexes except indexes for the table transactions
Suggested size of the datafile 50M
4. TWDYNAMIC is used to store static (not highly dynamic) tables
Suggested size of the datafile 50M
5. TWLOOKUP is used to store static (not highly dynamic) tables
Suggested size of the datafile 30M
6. TWINTERFACES is used to store tables for interfaces
Suggested size of the datafile 10M
7. TWREPORTS is used to store tables for reports
Suggested size of the datafile is 10M

Other Considerations and Recommendations

Estimating Storage for lookup and/or static tables:

- a) If the exact amount of data that is going to be placed on a disk is known, it is recommended to put it into one extent to minimize the fragmentation.
- b) If the amount of data growth is expected to be small, specify NEXT extent 16K and PCTINCREASE 50%.

Estimating Storage for dynamic tables:

For dynamic tables the most important factor is the NEXT extent and PCTINCREASE.



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Analyze the current growth rate by doing the following:

- a) Calculate the length of a row in the table. Analyze how many transactions or how many changes per period (per day, per week, per month) can be expected.
- b) Calculate the INITIAL extent to put as much data as possible into one extent. Calculate the NEXT extent based on the knowledge of how fast data will be growing or how many changes you can expect for that table.

Estimating Storage for indexes:

- a) If you have an index by specific columns – take the nominal value of these columns and multiply by rows that you are expecting in this table.

The most resource consuming operation occurs when ORACLE writes and reads from the disk. Therefore it is highly recommended creating datafiles for the different tablespaces in the different disks or partitions.